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PASSWORD:

TERMINAL (ENTER 1, 2, 3, OR ?):2

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* * * * * * * * * Welcome to STN International
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     1
                 Web Page for STN Seminar Schedule - N. America
        APR 02
                 CAS Registry Number Crossover Limits Increased to
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                  500,000 in Key STN Databases
NEWS
     3 APR 02
                 PATDPAFULL: Application and priority number formats
                  enhanced
NEWS 4 APR 02
                 DWPI: New display format ALLSTR available
NEWS 5 APR 02
                 New Thesaurus Added to Derwent Databases for Smooth
                  Sailing through U.S. Patent Codes
NEWS 6 APR 02
                 EMBASE Adds Unique Records from MEDLINE, Expanding
                  Coverage back to 1948
NEWS
     7 APR 07
                 50,000 World Traditional Medicine (WTM) Patents Now
                  Available in CAplus
NEWS 8
         APR 07
                 MEDLINE Coverage Is Extended Back to 1947
NEWS 9
         JUN 16
                 WPI First View (File WPIFV) will no longer be
                 available after July 30, 2010
DWPI: New coverage - French Granted Patents
         JUN 18
NEWS 10
NEWS 11
         JUN 18
                 CAS and FIZ Karlsruhe announce plans for a new
                  STN platform
NEWS 12
         JUN 18
                 IPC codes have been added to the INSPEC backfile
                  (1969 - 2009)
NEWS 13
         JUN 21
                 Removal of Pre-IPC 8 data fields streamline displays
                  in CA/CAplus, CASREACT, and MARPAT
                 Access an additional 1.8 million records exclusively
NEWS 14
         JUN 21
                  enhanced with 1.9 million CAS Registry Numbers --
                  EMBASE Classic on STN
                 Introducing "CAS Chemistry Research Report": 40 Years of Biofuel Research Reveal China Now Atop U.S. in
NEWS 15
         JUN 28
                  Patenting and Commercialization of Bioethanol
NEWS 16 JUN 29
                 Enhanced Batch Search Options in DGENE, USGENE,
                  and PCTGEN
NEWS 17 JUL 19
                 Enhancement of citation information in INPADOC
                  databases provides new, more efficient competitor
                  analvses
NEWS 18
         JUL 26
                 CAS coverage of global patent authorities has
                  expanded to 61 with the addition of Costa Rica
NEWS 19
        SEP 15
                 MEDLINE Cited References provide additional
                  revelant records with no additional searching.
NEWS 20
         OCT 04
                 Removal of Pre-IPC 8 data fields streamlines
                  displays in USPATFULL, USPAT2, and USPATOLD.
                 Precision of EMBASE searching enhanced with new
NEWS 21 OCT 04
                  chemical name field
NEWS 22
         OCT 06
                  Increase your retrieval consistency with new formats or
                  for Taiwanese application numbers in CA/CAplus.
NEWS 23 OCT 21
                 CA/CAplus kind code changes for Chinese patents
                 increase consistency, save time
New version of STN Viewer preserves custom
NEWS 24
         OCT 22
                  highlighting of terms when patent documents are
                  saved in .rtf format
NEWS 25 OCT 28
                 INPADOCDB/INPAFAMDB: Enhancements to the US national
                  patent classification.
NEWS 26 NOV 03
                 New format for Korean patent application numbers in
                  CA/CAplus increases consistency, saves time.
NEWS 27 NOV 04
                 Selected STN databases scheduled for removal on
                  December 31, 2010
```

NEWS EXPRESS FEBRUARY 15 10 CURRENT WINDOWS VERSION IS V8.4.2, AND CURRENT DISCOVER FILE IS DATED 07 JULY 2010.

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FILE 'HOME' ENTERED AT 13:31:46 ON 17 NOV 2010

=> file reg

 COST IN U.S. DOLLARS
 SINCE FILE
 TOTAL

 ENTRY
 SESSION

 FULL ESTIMATED COST
 0.22
 0.22

FILE 'REGISTRY' ENTERED AT 13:31:59 ON 17 NOV 2010 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

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STRUCTURE FILE UPDATES: 16 NOV 2010 HIGHEST RN 1253329-10-0 DICTIONARY FILE UPDATES: 16 NOV 2010 HIGHEST RN 1253329-10-0

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http://www.cas.org/support/stngen/stndoc/properties.html

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L1 STRUCTURE UPLOADED

=> d 11

=>

L1 HAS NO ANSWERS

L1 STR

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

Structure attributes must be viewed using STN Express query preparation.

=> s 11

SAMPLE SEARCH INITIATED 13:32:36 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 1835 TO ITERATE

100.0% PROCESSED 1835 ITERATIONS SEARCH TIME: 00.00.01

15 ANSWERS

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**

PROJECTED ITERATIONS: 34131 TO 39269
PROJECTED ANSWERS: 68 TO 532

15 SEA SSS SAM L1

=> d scan

15 ANSWERS REGISTRY COPYRIGHT 2010 ACS on STN

INDEX NAME NOT YET ASSIGNED ΙN

C18 H22 N6 O5 MF

Absolute stereochemistry.

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):5

15 ANSWERS REGISTRY COPYRIGHT 2010 ACS on STN Acetic acid, [(6-amino-9- β -D-ribofuranosyl-9H-purin-2-yl)oxy]- (9CI) C12 H15 N5 O7 IN

 ${\rm MF}$

Absolute stereochemistry.

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

15 ANSWERS REGISTRY COPYRIGHT 2010 ACS on STN Adenosine, 2-[(3,6-dimethyl-6-heptenyl)oxy]-, (R)- (9CI) C19 H29 N5 O5 IN

MF

Absolute stereochemistry.

McIntosh

10/598,520

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

15 ANSWERS REGISTRY COPYRIGHT 2010 ACS on STN Adenosine, 2-[(2,2-diphenylethyl)amino]- (9CI) C24 H26 N6 O4 MF

Absolute stereochemistry.

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

15 ANSWERS REGISTRY COPYRIGHT 2010 ACS on STN

IN Cyclohexanepropanoic acid, 4-[2-[(6-amino-9- β -D-ribofuranosyl-9Hpurin-2-yl)amino]ethyl]-C21 H32 N6 O6

MF

CI COM

Absolute stereochemistry.

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

 L_2

15 ANSWERS REGISTRY COPYRIGHT 2010 ACS on STN Adenosine, 2-[[2-(6,6-dimethylbicyclo[3.1.1]hept-2-en-2-yl)ethyl]amino]-ΤN (9CI)

MF C21 H30 N6 O4

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):0

=>

Uploading C:\Program Files\Stnexp\Queries\10598520a.str

L3 STRUCTURE UPLOADED

=> s 13

SAMPLE SEARCH INITIATED 13:39:51 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 1831 TO ITERATE

100.0% PROCESSED 1831 ITERATIONS

8 ANSWERS

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**

BATCH **COMPLETE**

PROJECTED ITERATIONS: 34053 TO 39187

PROJECTED ANSWERS: 8 TO 328

L4 8 SEA SSS SAM L3

=> d scan

L4 8 ANSWERS REGISTRY COPYRIGHT 2010 ACS on STN
IN Adenosine, 2-[[4-(aminocarbonyl)phenyl]amino]- (9CI)
MF C17 H19 N7 O5

Absolute stereochemistry.

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):0

=> s 13 full

FULL SEARCH INITIATED 13:40:03 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 36053 TO ITERATE

100.0% PROCESSED 36053 ITERATIONS SEARCH TIME: 00.00.01

148 ANSWERS

198.13

L5 148 SEA SSS FUL L3

=> file caplus

COST IN U.S. DOLLARS

SINCE FILE TOTAL ENTRY SESSION

197.91

FULL ESTIMATED COST

FILE 'CAPLUS' ENTERED AT 13:40:10 ON 17 NOV 2010 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2010 AMERICAN CHEMICAL SOCIETY (ACS)

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FILE COVERS 1907 - 17 Nov 2010 VOL 153 ISS 21
FILE LAST UPDATED: 16 Nov 2010 (20101116/ED)
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Aug 2010
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Aug 2010

CAplus now includes complete International Patent Classification (IPC) reclassification data for the third quarter of 2010.

CAS Information Use Policies apply and are available at:

http://www.cas.org/legal/infopolicy.html

This file contains CAS Registry Numbers for easy and accurate substance identification.

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=> s 15
L6 195 L5
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=> d bib abs hitstr 1-195 16

```
L6 ANSWER 1 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN
```

- AN 2010:819643 CAPLUS
- DN 153:154787
- TI Combination of monosaccharides and adenosine for cosmetic uses
- IN Laboureau, Julien; Simonnet, Jean-Thierry; Portes, Pascal
- PA L'Oreal, Fr.
- SO U.S. Pat. Appl. Publ., 17pp.
- CODEN: USXXCO
- DT Patent
- LA English
- FAN.CNT 1

| L LITA. | CINIT | | | | | | | | | | | | | | | |
|---------|---------|----------|-------|-----|------|------|------|------|-------|-------|-------|------|-----|-------|-------|-----|
| | PATENT | NO. | | KIN | D | DATE | | | APPI | ICAT | ION 1 | NO. | | D | ATE | |
| | | | _ | | _ | | | | | | | | | _ | | |
| PI | US 2010 | 0168049 | | A1 | | 2010 | 0701 | | US 2 | 2009- | 6493 | 67 | | 2 | 0091. | 230 |
| | FR 2940 | 0611 | | A1 | | 2010 | 0702 | | FR 2 | -8008 | 5915: | 1 | | 2 | 0081. | 230 |
| | JP 2010 | 155834 | | Α | | 2010 | 0715 | | JP 2 | 2009- | 2982 | 71 | | 2 | 0091. | 228 |
| | KR 2010 | 0080437 | Α | | 2010 | 0708 | | KR 2 | 2009- | 1329: | 24 | | 2 | 0091. | 229 | |
| | EP 2204 | 1154 | A1 | | 2010 | 0707 | | EP 2 | 2009- | 1810 | 14 | | 2 | 0091. | 230 | |
| | R: | AT, BE | , BG, | CH, | CY, | CZ, | DE, | DK, | EE, | ES, | FΙ, | FR, | GB, | GR, | HR, | HU, |
| | | IE, IS | , IT, | LI, | LT, | LU, | LV, | MC, | MK, | MΤ, | NL, | ΝO, | PL, | PT, | RO, | SE, |
| | | SI, SK | , SM, | TR, | AL, | BA, | RS | | | | | | | | | |
| | CN 1018 | 356313 | | Α | | 2010 | 1013 | | CN 2 | 2009- | 1026 | 5295 | | 2 | 0091. | 230 |
| PRAI | FR 2008 | 3-59151 | | Α | | 2008 | 1230 | | | | | | | | | |
| | US 2009 | 9-144756 | P | P | | 2009 | 0115 | | | | | | | | | |

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

OS MARPAT 153:154787

AB The present invention relates to a composition, especially a cosmetic and/or dermatol. composition, containing, in a physiol. acceptable medium, a combination of a monosaccharide chosen from mannose, rhamnose and a mixture thereof, and of an addnl. compound chosen from adenosine, an analog thereof and a mixture thereof. Thus, a cosmetic formulation contained Hostacerin AMPS 1.00, cyclohexasiloxane 5.00, apricot kernel oil 7, Isononyl isononanoate 7, stearyl alc. 0.30, glyceryl stearate/PEG-100 stearate 0.70, Dimyristyl tartrate/cetearyl alc./C12-15-pareth-7/PPG-25 laureth-25 0.50, xanthan gum 0.20, mannose 2.5, rhamnose 2.5, adenosine 0.1, preservatives 0.5, and water qs to 100%.

IT 53296-10-9, 2-Phenylaminoadenosine

RL: COS (Cosmetic use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(combination of monosaccharides and adenosine for cosmetic uses)

RN 53296-10-9 CAPLUS

CN Adenosine, 2-(phenylamino)- (CA INDEX NAME)

```
ANSWER 2 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN
AN
     2010:178356 CAPLUS
DN
     152:255274
ΤI
     Administration by infusion for the treatment of ischemic effects
     Weber, Uno Jakob; Gotfredsen, Jacob
     Neurokey A/S, Den.
PΑ
SO
     PCT Int. Appl., 160pp.
     CODEN: PIXXD2
DT
     Patent
     English
LA
FAN.CNT 9
     PATENT NO.
                          KIND
                                 DATE
                                              APPLICATION NO.
                                                                      DATE
PΤ
     WO 2010015260
                           A2
                                 20100211
                                              WO 2009-DK50196
                                                                      20090807
     WO 2010015260
                           А3
                                 20100617
            AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ,
             CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG,
             ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP,
             KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR,
                                                           LS, LT, LU, LY, MA,
             MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PE,
             PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, SV,
             SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW
         RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU,
             IE, IS, IT,
                          LT, LU, LV, MC, MK, MT, NL, NO, PL, PT,
                                                                    RO, SE, SI,
             SK, SM, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE,
             SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA
     WO 2009071095
                           Α2
                                 20090611
                                              WO 2008-DK50293
                                                                      20081205
     WO 2009071095
                           АЗ
                                 20090723
         W: AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ,
             CA, CH, CN, CO,
                             CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES,
             FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE,
             KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD,
             ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH,
             PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TJ,
             TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW
         RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU,
             IE, IS, IT, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SI, SK,
             TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD,
             TG, BW, GH,
                          GM,
                              KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW,
             AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA
PRAI DK 2008-1079
                                 20080807
                           Α
     WO 2008-DK50293
                           Α
                                 20081205
     DK 2007-1742
                                 20071205
     DK 2007-1743
                           Α
                                 20071205
     DK 2008-716
                                 20080523
                           Α
     DK 2008-1105
                           Α
                                 20080815
     DK 2008-1337
                           Α
                                 20080926
     MARPAT 152:255274
     The invention relates to the induction of hypothermia in humans, male and
     female, at any age, by use of a pharmaceutical composition of formula I,
```

wherein R1 and R2 are chemical moieties or chemical bonds, wherein R1 is selected from the group of: C, S, N, O, optionally substituted with C, S, N, O, P, OH, 5 hydrogen, alkyl, alkenyl, alkynyl, any of which may or may not be branched or comprise substituents such as phosphate, cycloalkyl, etc., wherein R2 is selected from the group of: C, S, N, O, optionally substituted one or more times with C, S, N, O, P, OH, hydrogen, alkoxy, alkyl, alkenyl, alkynyl, Ph, di-Ph, benzyl, amine (NH), halogen, substituted lower alkyl, alkenyl, aryl, heterocycloalkyl, etc., to be administered parenterally by infusion or injection, comprising at least

McIntosh

one compound selected among vanilloid receptor agonists, capsaicinoids or capsaicinoid-like agonists reaching and binding to vanilloid receptors, and cannabinoids or cannabimimetic agonists reaching and binding to cannabinoid receptors, and adenosine receptor agonists, and neurotensin receptor agonists, and thyroxine derivs., and cytochrome c inhibitors, and oxygen tension reducers, thereby inducing hypothermia, thus benefiting patients suffering from illnesses characterized by tissue anoxia. 53296-10-9, CV-1808

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(induction of therapeutic hypothermia by pharmaceutical infusion of medications for prophylaxis, mono- and combination therapy of ischemia)

53296-10-9 CAPLUS Adenosine, 2-(phenylamino)- (CA INDEX NAME) RN CN

Absolute stereochemistry.

```
ANSWER 3 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN
1.6
```

2009:1566750 CAPLUS AN

DN 152:67621

 $\beta\text{--Adrenergic}$ receptor agonists for the treatment of B-cell proliferative disorders

ΤN Rickles, Richard; Lee, Margaret S.

PA

CombinatoRx, Inc., USA PCT Int. Appl., 111 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN CNT

| r An. | PATENT | NO. | | | KIN | D | DATE | | | APPL | ICAT | ION : | NO. | | | ATE | |
|-------|----------------|-------|-----|-----|----------|-----|--------------|------|-----|------|------|-------|-----|-----|-----|------|-----|
| PI | WO 200: | | | | A2
A3 | | 2009
2010 | | | WO 2 | 009- | US34 | 49 | | | 0090 | |
| | W: | ΑE, | AG, | AL, | AM, | AO, | ΑT, | ΑU, | ΑZ, | BA, | BB, | BG, | BH, | BR, | BW, | BY, | ΒZ, |
| | | CA, | CH, | CL, | CN, | CO, | CR, | CU, | CZ, | DE, | DK, | DM, | DO, | DZ, | EC, | EE, | EG, |
| | | ES, | FΙ, | GB, | GD, | GE, | GH, | GM, | GΤ, | HN, | HR, | HU, | ID, | IL, | IN, | IS, | JP, |
| | | KΕ, | KG, | KM, | KN, | KP, | KR, | KΖ, | LA, | LC, | LK, | LR, | LS, | LT, | LU, | LY, | MA, |
| | | MD, | ME, | MG, | MK, | MN, | MW, | MX, | MY, | MZ, | NA, | NG, | NI, | NO, | NZ, | OM, | PE, |
| | | PG, | PH, | PL, | PT, | RO, | RS, | RU, | SC, | SD, | SE, | SG, | SK, | SL, | SM, | ST, | SV, |
| | | SY, | ΤJ, | TM, | TN, | TR, | TΤ, | TZ, | UA, | UG, | US, | UΖ, | VC, | VN, | ZA, | ZM, | ZW |
| | RW | : AT, | BE, | BG, | CH, | CY, | CZ, | DE, | DK, | EE, | ES, | FI, | FR, | GB, | GR, | HR, | HU, |
| | | IE, | IS, | ΙT, | LT, | LU, | LV, | MC, | MK, | MT, | NL, | NO, | PL, | PT, | RO, | SE, | SI, |
| | | SK, | TR, | BF, | ВJ, | CF, | CG, | CI, | CM, | GΑ, | GN, | GQ, | GW, | ML, | MR, | NE, | SN, |
| | | TD, | TG, | BW, | GH, | GM, | KE, | LS, | MW, | MZ, | NA, | SD, | SL, | SZ, | TZ, | UG, | ZM, |
| | | ZW, | ΑM, | ΑZ, | BY, | KG, | KΖ, | MD, | RU, | ТJ, | TM, | AP, | EA, | EP, | OA | | |
| | US 20100009934 | | | | | | 2010 | 0114 | | US 2 | 009- | 4800 | 34 | | 2 | 0090 | 806 |
| PRAI | US 200 | 3-600 | 64P | | P | | 2008 | 0609 | | | | | | | | | |

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT The invention discloses a method for treating a B-cell proliferative disorder by administering to a patient a β -Adrenergic receptor (BAR) agonist, e.g., formulated for administration by a route other than inhalation (such as for oral or i.v. administration), in an amount effective to treat the B-cell proliferative disorder. The BAR agonist may be administered as a monotherapy or in combination with one or more other agents, e.g., a PDE inhibitor, an A2A receptor agonist, or an antiproliferative compound, in amts. that together are effective to treat the B-cell proliferative disorder. The invention further discloses pharmaceutical compns. and kits including a BAR agonist, alone or in combination with addnl. agents, for the treatment of a B-cell proliferative disorder.

53296-10-9, CV 1808

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

 $(\beta-Adrenergic\ receptor\ agonists\ for\ treatment\ of\ B-cell$ proliferative disorders, and use with other agents)

53296-10-9 CAPLUS

Adenosine, 2-(phenylamino)- (CA INDEX NAME) CN

Absolute stereochemistry.

T.6 ANSWER 4 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN

AN 2009:1496452 CAPLUS

DN 153:34972

Adenosine: roles of different receptor subtypes in mediating histamine TΙ release from human and rodent mast cells

ΑU Yip, K. H.; Wong, L. L.; Lau, H. Y. A.

Department of Pharmacology, Faculty of Medicine, Chinese University of CS Hong Kong, Hong Kong SAR, Peop. Rep. China Inflammation Research (2009), 58(Suppl. 1), S17-S19

SO

CODEN: INREFB; ISSN: 1023-3830 PB Birkhaeuser Verlag

DT Journal

T.A English

AΒ The effects of adenosine and adenosine receptor agonists on basal and anti-IqE induced histamine release from rat (RPMC) were compared with human mast cells (HCMC). Adenosine and its analogs alone did not initiate histamine release from RPMC and HCMC. However, adenosine could modulate IgE-dependent mediator release from both mast cell types, but with totally opposite predominant actions. Adenosine (10-5-10-3 M) produced a dose-dependent potentiating effect on anti-IgE induced histamine release in RPMC but a predominantly inhibitory action in HCMC. When adenosine was added simultaneously with anti-IgE to RPMC, an inhibitory tendency was observed at concns. below 10-5 M, while the potentiating effect observed at higher concns. remained. Contrastingly, when added to HCMC simultaneously with anti-IgE, adenosine produced only dose-dependent inhibition but slight potentiation between 10-9 to 10-7 M was observed before the strong inhibition above 10-6 M when adenosine was incubated with HCMC 10 min before anti-IgE challenge.

TT 53296-10-9, 2-Phenylamino-adenosine RL: BUU (Biological use, unclassified); BIOL (Biological study); USES

(adenosine receptor subtypes in mediating histamine release from human and rodent mast cells)

53296-10-9 CAPLUS

Adenosine, 2-(phenylamino)- (CA INDEX NAME)

RE.CNT 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

- ANSWER 5 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN 1.6
- ΑN 2009:1368423 CAPLUS
- 152:51216
- Drug Effects Viewed from a Signal Transduction Network Perspective TΙ
- Fliri, Anton F.; Loging, William T.; Volkmann, Robert A. ΑIJ
- Pfizer Global Research and Development, Groton, CT, 06340, USA Journal of Medicinal Chemistry (2009), 52(24), 8038-8046 CS
- SO CODEN: JMCMAR; ISSN: 0022-2623
- PB American Chemical Society
- DT Journal
- LΑ English
- AΒ Understanding how drugs affect cellular network structures and how resulting signals are translated into drug effects holds the key to the discovery of medicines. Herein we examine this cause-effect relationship by determining protein network structures associated with the generation of specific in vivo drug-effect patterns. Medicines having similar in vivo pharmacol. have been identified by a comparison of drug-effect profiles of 1320 medicines. Protein network positions reached by these medicines were ascertained by examining the coinvestigation frequency of these medicines and 1179 protein network constituents in millions of scientific investigations. Interestingly, medicine assocns. obtained by comparing by drug-effect profiles mirror those obtained by comparing drug-protein coinvestigation frequency profiles, demonstrating that these drug-protein reachability profiles are relevant to in vivo pharmacol. By using protein assocns. obtained in these investigations and independent, curated protein interaction information, drug-mediated protein network topol. models can be constructed. These protein network topol. models reveal that drugs having similar pharmacol. profiles reach similar discrete positions in cellular protein network systems and provide a network view of medicine cause-effect relationships.
- 53296-10-9, 2-Phenylaminoadenosine
 - RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 - (drug effects viewed from a signal transduction network perspective)
- 53296-10-9 CAPLUS RN
- Adenosine, 2-(phenylamino)- (CA INDEX NAME)

- OSC.G THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (2 CITINGS) RE.CNT 36 THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT
- 1.6 ANSWER 6 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN
- 2009:1180279 CAPLUS ΑN
- DN 152:6936
- $\text{CkI}\epsilon/\delta$ -dependent phosphorylation is a TΙ temperature-insensitive, period-determining process in the mammalian circadian clock
- ΑIJ Isojima, Yasushi; Nakajima, Masato; Ukai, Hideki; Fujishima, Hiroshi; Yamada, Rikuhiro G.; Masumoto, Koh-Hei; Kiuchi, Reiko; Ishida, Mayumi; Ukai-Tadenuma, Maki; Minami, Yoichi; Kito, Ryotaku; Nakao, Kazuki; Kishimoto, Wataru; Yoo, Seung-Hee; Shimomura, Kazuhiro; Takao, Toshifumi; Takano, Atsuko; Kojima, Toshio; Nagai, Katsuya; Sakaki, Yoshiyuki; Takahashi, Joseph S.; Ueda, Hiroki R.
- Comparative Systems Biology Team, Genomic Science Center, RIKEN, 1-7-22, Suehiro-cho, Tsurmi, Yokohama, 230-0045, Japan CS
- Proceedings of the National Academy of Sciences of the United States of

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America (2009), 106(37), 15744-15749, S15744/1-S15744/74 CODEN: PNASA6; ISSN: 0027-8424
     National Academy of Sciences
DT
     Journal
LA
     English
     A striking feature of the circadian clock is its flexible yet robust
     response to various environmental conditions. To analyze the biochem. processes underlying this flexible-yet-robust characteristic, we examined
     the effects of 1260 pharmacol. active compds. in mouse and human clock
     cell lines. Compds. that markedly (>10 s.d.) lengthened the period in
     both cell lines, also lengthened it in-central clock tissues and
     peripheral clock cells. Most compds. inhibited casein kinase \text{I}\epsilon
      (CKI\epsilon) or CKI\delta phosphorylation of the PER2 protein.
     Manipulation of CKIarepsilon/\delta-dependent phosphorylation by these
     compds. lengthened the period of the mammalian clock from circadian (24 h)
     to circabidian (48 h), revealing its high sensitivity to chemical
     perturbation. The degradation rate of PER2, which is regulated by
     CKI\epsilon/\delta-dependent phosphorylation, was temperature-insensitive in
     living clock cells, yet sensitive to chemical perturbations. This
     temperature-insensitivity was preserved in the \text{CKI}\epsilon/\delta-dependent
     phosphorylation of a synthetic peptide in vitro.
     CKIarepsilon/\delta-dependent phosphorylation is likely a
     temperature-insensitive period-determining process in the mammalian circadian clock.
ΤТ
     53296-10-9, CV-1808
     RL: BSU (Biological study, unclassified); PAC (Pharmacological activity);
     BIOL (Biological study)
         (CkI\epsilon/\delta-dependent phosphorylation is temperature-insensitive,
         period-determining process in mammalian circadian clock)
     53296-10-9 CAPLUS
Adenosine, 2-(phenylamino)- (CA INDEX NAME)
RN
CN
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Absolute stereochemistry.

ALL CITATIONS AVAILABLE IN THE RE FORMAT ANSWER 7 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN 2009:1173082 CAPLUS ΑN 151:542900 DN TΙ Structure-based discovery of low molecular weight compounds that stimulate neurite outgrowth and substitute for nerve growth factor ΑU Williams, Britney; Dwyer, Donard S. Departments of Psychiatry, and Pharmacology, Toxicology and Neuroscience, CS Louisiana State University Health Sciences Center, Shreveport, LA, USA Journal of Neurochemistry (2009), 110(6), 1876-1884 CODEN: JONRA9; ISSN: 0022-3042 SO PB Wiley-Blackwell DT Journal LΑ English

THERE ARE 11 CAPLUS RECORDS THAT CITE THIS RECORD (11 CITINGS)

THERE ARE 93 CITED REFERENCES AVAILABLE FOR THIS RECORD

AB Olanzapine, an atypical antipsychotic drug, was previously shown to protect neuronal cells against nutrient deprivation and to enhance neurite outgrowth. In an effort to identify small mols, with greater potency, the structure of olanzapine was used as a template to search com, available chemical inventories for compds, with similar features. These compds, were evaluated for their ability to protect cells against glutamine deprivation and low-serum conditions. Pos. compds, 'hits' from initial screening, were then tested for stimulation of neurite outgrowth, alone and in combination with suboptimum concns, of nerve growth factor (NGF).

Numerous neuroprotective compds. (mw < 550 Da) were identified that significantly stimulated neurite outgrowth in PC12 cells. These included

OSC.G

RE.CNT

11

4', 6'-diamidino-2-phenylindole, a nuclear stain; staurosporine, an antibiotic and kinase inhibitor; and 2-phenylamino-adenosine, an adenosine analog. The small mols. were comparable with NGF, and in fact, replaced NGF in outgrowth assays. Pharmacophore anal. of the hits led to the design and synthesis of an active compound, LSU-D84, which represented an initial lead for drug discovery efforts.

IT 53296-10-9, LSU 165

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(structure-based discovery of low mol. weight compds. that stimulate neurite outgrowth and substitute for nerve growth factor)

RN 53296-10-9 CAPLUS

CN Adenosine, 2-(phenylamino)- (CA INDEX NAME)

Absolute stereochemistry.

RE.CNT 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

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L6 ANSWER 8 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN
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AN 2009:740234 CAPLUS

DN 151:70285

TI Compositions and methods coactivating both A1 and A2A adenosine receptors for the treatment and prevention of cardiovascular diseases

IN Feldman, Arthur; Chan, Tung

PA Thomas Jefferson University, USA

SO PCT Int. Appl., 127pp. CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

| FAN. | AN.CNT 1
PATENT NO. | | | | | | _ | | | | * DDT | T. C. T. III | TON : | NTO. | | Б | 3 mm | |
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| | PAI | ENI | NO. | | | KIN. | D | DATE | | | APPL | ICAT. | LON . | NO. | | | ATE | |
| ΡI | WO | 2009 | 0765 | 80 | | A2 | | 2009 | 0618 | | WO 2 | 008- | US86. | 528 | | | 0081: | |
| | WO | 2009 | 0765 | 80 | | А3 | | 2009 | 0820 | | | | | | | | | |
| | | W: | ΑE, | AG, | AL, | AM, | AO, | ΑT, | ΑU, | ΑZ, | ΒA, | BB, | BG, | BH, | BR, | BW, | BY, | ΒZ, |
| | | | CA, | CH, | CN, | CO, | CR, | CU, | CZ, | DE, | DK, | DM, | DO, | DZ, | EC, | EE, | EG, | ES, |
| | | | FΙ, | GΒ, | GD, | GE, | GH, | GM, | GΤ, | HN, | HR, | HU, | ID, | IL, | IN, | IS, | JP, | KE, |
| | | | KG, | ΚM, | KN, | KP, | KR, | KΖ, | LA, | LC, | LK, | LR, | LS, | LT, | LU, | LY, | MA, | MD, |
| | | | $	ext{ME}$, | MG, | MK, | MN, | MW, | MX, | MY, | MZ, | NΑ, | NG, | NΙ, | NO, | NΖ, | OM, | PG, | PH, |
| | | | PL, | PT, | RO, | RS, | RU, | SC, | SD, | SE, | SG, | SK, | SL, | SM, | ST, | SV, | SY, | ΤJ, |
| | | | TM, | TN, | TR, | TT, | TΖ, | UA, | UG, | US, | UZ, | VC, | VN, | ZA, | ZM, | ZW | | |
| | | RW: | ΑT, | BE, | BG, | CH, | CY, | CZ, | DE, | DK, | EE, | ES, | FΙ, | FR, | GB, | GR, | HR, | HU, |
| | | | IE, | IS, | ΙT, | LT, | LU, | LV, | MC, | MT, | NL, | NO, | PL, | PT, | RO, | SE, | SI, | SK, |
| | | | TR, | BF, | ΒJ, | CF, | CG, | CI, | CM, | GΑ, | GN, | GQ, | GW, | ML, | MR, | NE, | SN, | TD, |
| | | | ΤG, | BW, | GH, | GM, | KE, | LS, | MW, | MZ, | NA, | SD, | SL, | SZ, | TZ, | UG, | ZM, | ZW, |
| | | | , | , | , | KG, | , | MD, | , | , | , | , | , | , | | | | |
| | | 2010 | | | | A1 | | 2010 | | | US 2 | 010- | 7471 | 47 | | 2 | 0100 | 706 |
| PRAI | | 2007 | | | | - | | 2007 | | | | | | | | | | |
| | WO | 2008- | -US8 | 6528 | | W | | 2008 | 1212 | | | | | | | | | |

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

The present invention is directed to a pharmaceutical composition, and methods of use thereof, comprising at least one agent which target multiple adenosine receptors (AR) simultaneously in a stoichiometric relationship (i.e. each AR receptor is targeted to an equal extent). Aspects of the present invention relate to pharmaceutical compns., and uses thereof, comprising at least one agent which co-activates an A1-adenosine receptor (A1-AR) and an A2A-adenosine receptor (A2A-AR) or a combination of at least one agent which activates an A1-AR and at least one agent which activates an A2A-AR, where both the A1-AR and A2A-AR are activated in a stoichiometric relationship such that the level of biol. activation of

A1-AR is approx. the same level of biol. activation of A2A-AR. Other aspects of the present invention relate to methods for the therapeutic and prophylactic treatment of cardiac dysfunction in a subject having or at risk of having a cardiac dysfunction, for example, but not limited to, for the treatment of a subject with myocardial infarction, such as acute myocardial infarction, coronary ischemia or congestive heart failure and other cardiac dysfunctions. Long term or chronic administration of agonists which activate only the A1-AR or alternatively only the A2A-AR results in deleterious effects on cardiac function. If both the A1-AR and the A2A-AR are co-activated substantially simultaneously, the cardiac function was unexpectedly not compromised. Thus, use of at least one agent which co-activates both the A1-AR and the A2A-AR, or a combination of at least one or more agents which activates the A1-AR and at least one or more agents which activate the A2A-AR is useful to mediate cardioprotective effect.

53296-10-9, CV1808

RL: BSU (Biological study, unclassified); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(or analogs or derivs. or salts thereof, as agent activating adenosine receptor A1; compns. and methods coactivating both A1 and A2A adenosine receptors for treatment and prevention of cardiovascular diseases)

RN 53296-10-9 CAPLUS

Adenosine, 2-(phenylamino)- (CA INDEX NAME) CN

Absolute stereochemistry.

osc.g 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

ANSWER 9 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN

2009:710118 CAPLUS AN

DN 151:49344

Combination of medical and physical cooling treatment of ischemic effects TT

Gotfredsen, Jacob; Weber, Uno Jakob ΙN

Neurokey A/S, Den. PA

PCT Int. Appl., 142pp. SO

CODEN: PIXXD2 Patent

DТ LA English

FAN.CNT 9

KIND PATENT NO. DATE APPLICATION NO. DATE WO 2009071096 20090611 WO 2008-DK50294 A2 20081205 WO 2009071096 20100107 A3 W: AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA PRAI DK 2007-1742 20071205 Α DK 2007-1744 Α 20071205 DK 2008-1104 20080815 Α DK 2008-1105 20080815 Α

OS MARPAT 151:49344

The present invention relates to the induction of hypothermia in humans in

a predictable and dose responsive fashion by use of combination of phys./mech. hypothermia therapy and a pharmaceutical composition comprising at least one compound selected among a (1) vanilloid receptor agonists, capsaicinoids or capsaicinoid-like agonists reaching and binding to vanilloid receptors, and (2) cannabinoids or cannabimimetic agonists reaching and binding to cannabinoid receptors, and (3) adenosine receptor agonists, and (4) neurotensin receptor agonists, and (5) thyroxine derivs., and (6) cytochrome c oxidase inhibitors and (7) oxygen tension reducers thereby inducing hypothermia, thus benefiting patients suffering from illnesses characterized by tissue anoxia. 53296-10-9, CV-1808

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(as adenosine receptor agonist; combination of medical and phys. cooling treatment of ischemic effects)

53296-10-9 CAPLUS RN

CN Adenosine, 2-(phenylamino) - (CA INDEX NAME)

Absolute stereochemistry.

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ANSWER 10 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN
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2009:703623 CAPLUS ΑN

151:49342 DN

ΤΙ Combination treatment of ischemic effects

Gotfredsen, Jacob; Weber, Uno Jakob

Neurokey A/S, Den. PΑ

PCT Int. Appl., 131pp. SO

CODEN: PIXXD2

Patent

English LΑ

| F AIN. | PATENT | | | | KIN | D | DATE | | - | APPL | | | NO. | | - | ATE | |
|--------|--------------------|---------|------|-----|----------|-----|------------------|------|-----|------|-----|-----|-----|-----|-----|-------|-----|
| PI | WO 2009
WO 2009 | 0710 | 94 | | A2
A3 | |
2009
2009 | 0611 | 1 | | | | | | | 0081: | |
| | W: | ΑE, | AG, | AL, | AM, | AO, | ΑT, | ΑU, | ΑZ, | BA, | BB, | BG, | BH, | BR, | BW, | BY, | ΒZ, |
| | | CA, | CH, | CN, | CO, | CR, | CU, | CZ, | DE, | DK, | DM, | DO, | DZ, | EC, | EE, | EG, | ES, |
| | | FΙ, | GB, | GD, | GE, | GH, | GM, | GΤ, | HN, | HR, | HU, | ID, | IL, | IN, | IS, | JP, | KE, |
| | | KG, | KM, | KN, | KP, | KR, | ΚZ, | LA, | LC, | LK, | LR, | LS, | LT, | LU, | LY, | MA, | MD, |
| | | ME, | MG, | MK, | MN, | MW, | MX, | MY, | MZ, | NA, | NG, | NΙ, | NO, | NΖ, | OM, | PG, | PH, |
| | | PL, | PT, | RO, | RS, | RU, | SC, | SD, | SE, | SG, | SK, | SL, | SM, | ST, | SV, | SY, | ΤJ, |
| | | TM, | TN, | TR, | TT, | ΤZ, | UA, | UG, | US, | UZ, | VC, | VN, | ZA, | ZM, | ZW | | |
| | RW: | ΑT, | BE, | BG, | CH, | CY, | CZ, | DE, | DK, | EE, | ES, | FΙ, | FR, | GB, | GR, | HR, | HU, |
| | | IE, | IS, | ΙT, | LT, | LU, | LV, | MC, | MT, | NL, | NO, | PL, | PT, | RO, | SE, | SI, | SK, |
| | | TR, | BF, | ΒJ, | CF, | CG, | CI, | CM, | GA, | GN, | GQ, | GW, | ML, | MR, | NE, | SN, | TD, |
| | | TG, | BW, | GH, | GM, | KE, | LS, | MW, | MZ, | NA, | SD, | SL, | SZ, | TZ, | UG, | ZM, | ZW, |
| | | AM, | ΑZ, | BY, | KG, | ΚZ, | MD, | RU, | ΤJ, | TM, | AP, | EA, | EP, | OA | | | |
| PRAI | DK 2007 | -174 | 2 | | Α | | 2007 | 1205 | | | | | | | | | |
| | DK 2008-1079 | | | | A | | 2008 | 0807 | | | | | | | | | |
| | DK 2008-1105 | | | | Α | | 2008 | 0815 | | | | | | | | | |
| 0.0 | MADDAG | 1 [1 . | 1021 | 0 | | | | | | | | | | | | | |

OS MARPAT 151:49342

The present invention relates to the induction of hypothermia in humans, male and female, at any age, in a predictable and dose responsive fashion by use of a pharmaceutical composition comprising a combination of two or more compds. selected among (1) vanilloid receptor agonists, capsaicinoids or capsaicinoid-like agonists reaching and binding to vanilloid receptors, and (2) cannabinoids or cannabimimetic agonists reaching and binding to cannabinoid receptors, and (3) adenosine receptor agonists, and (4)neurotensin receptor agonists, and (5) thyroxine derivs., and (6) cytochrome c inhibitors, and (7) oxygen tension reducers, with the proviso

that if the first compound is (1) then the second is not (2), thereby inducing hypothermia, thus benefiting patients suffering from illnesses characterized by tissue anoxia.

IT 53296-10-9, CV-1808

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(as adenosine receptor agonist; combination treatment of ischemic effects using hypothermia inducing agents)

RN 53296-10-9 CAPLUS

CN Adenosine, 2-(phenylamino) - (CA INDEX NAME)

Absolute stereochemistry.

L6 ANSWER 11 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN

AN 2009:343325 CAPLUS

DN 151:212164

TI Activation of adenosine A2A receptor impairs memory acquisition but not consolidation or retrieval phases

AU Kim, Dong Hyun; Ryu, Jong Hoon

CS Department of Life and Nanopharmaceutical Sciences, Kyung Hee East-West Pharmaceutical Research Institute, College of Pharmacy, Kyung Hee University, Hoeki-dong, Dongdaemoon-Ku, Seoul, 130-701, S. Korea

SO Biomolecules & Therapeutics (2008), 16(4), 320-327 CODEN: BTIHA3; ISSN: 1976-9148

Korean Society of Applied Pharmacology

DT Journal

LA English

PВ

AB Several lines of evidence indicate that adenosine A2A agonist disrupts spatial working memory. However, it is unclear which stages of learning and memory are affected by the stimulation of adenosine A2A receptor. To clarify these points, we employed CV-1808 as adenosine A2A agonist and investigated its effects on acquisition, consolidation, and retrieval phases of learning and memory using passive avoidance and the Morris water maze tasks. During the acquisition phase, CV-1808 (2-phenylaminoadenosine, 1 and 2 mg/kg, i.p.) decreased the latency time in passive avoidance task and the mean savings in the Morris water maze task, resp. During the consolidation and retrieval phase tests, CV-1808 did not exhibited any effects on latency time in passive avoidance task and the mean savings in the Morris water maze task. These results suggest that CV-1808 as an adenosine A2A agonist impairs memory acquisition but not consolidation or retrieval.

IT 53296-10-9, CV-1808

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(activation of adenosine A2A receptor by CV-1808 impaired acquisition but not consolidation or retrieval phase of memory and learning in mouse)

RN 53296-10-9 CAPLUS

CN Adenosine, 2-(phenylamino) - (CA INDEX NAME)

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NH2
PhNH
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                   HC
                            ОН
OSC.G
              THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)
              THERE ARE 60 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE.CNT 60
              ALL CITATIONS AVAILABLE IN THE RE FORMAT
L6
     ANSWER 12 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN
     2009:86451 CAPLUS
AN
DN
     150:160095
     Use of adenosine A2A receptor agonists and phosphodiesterase (PDE)
TT
     inhibitors for the treatment of B-cell proliferative disorders, and
     combinations with other agents
     Rickles, Richard; Lee, Margaret S.
IN
     CombinatoRx, Incorporated, USA
PA
SO
     PCT Int. Appl., 70 pp.
     CODEN: PIXXD2
DT
     Patent
LΑ
     English
FAN.CNT 1
                          KIND
     PATENT NO.
                                 DATE
                                             APPLICATION NO.
                                                                      DATE
                           Α2
                                 20090122
PT
     WO 2009011893
                                             WO 2008-US8758
                                                                      20080717
     WO 2009011893
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             ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH,
             PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TJ,
             TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW
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     AU 2008276451
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                                                                      20080717
                           A1
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     US 20090053168
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                                             EP 2008-780231
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             SK, TR, AL, BA, MK, RS
PRAI US 2007-950307P
                           Р
                                 20070717
     US 2007-965587P
                           Р
                                 20070821
     WO 2008-US8758
                           W
                                 20080717
ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT
     The invention provides compns. and methods for the treatment of B-cell
     proliferative disorders that employ an A2A receptor agonist or one or more
     PDE inhibitors. The methods and compns. may further include an
     antiproliferative compound
     53296-10-9, CV 1808
     RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL
     (Biological study); USES (Uses)
        (adenosine A2A receptor agonists and phosphodiesterase inhibitors for
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treatment of B-cell proliferative disorders, and combinations with

CN Adenosine, 2-(phenylamino) - (CA INDEX NAME)

Absolute stereochemistry.

other agents)

53296-10-9 CAPLUS

RN

NH2

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PhNH
                        R S
                             ОН
OSC.G
              THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (2 CITINGS)
1.6
     ANSWER 13 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN
     2009:83374 CAPLUS
AN
     150:160094
DN
     Combinations for the treatment of B-cell proliferative disorders
     Rickles, Richard; Pierce, Laura; Lee, Margaret S.
ΤN
     Combinatorx, Incorporated, USA
PA
SO
     PCT Int. Appl., 79pp.
     CODEN: PIXXD2
DT
     Patent
LA
     English
FAN.CNT 1
     PATENT NO.
                          KIND
                                  DATE
                                              APPLICATION NO.
                                                                       DATE
PТ
     WO 2009011897
                                  20090122
                                              WO 2008-US8764
                                                                       20080717
                           A1
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              CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES,
             FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE,
              KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD,
             ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH,
             PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TJ,
             TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW
         RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU,
              IE, IS, IT, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SI, SK,
              TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD,
             TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
                                              AU 2008-276455
     AU 2008276455
                           A1
                                  20090122
                                                                       20080717
     CA 2694987
                           Α1
                                  20090122
                                              CA 2008-2694987
                                                                       20080717
     US 20090047243
                                  20090219
                                              US 2008-175121
                                                                       20080717
                           Α1
     EP 2178370
                                              EP 2008-780237
                                  20100428
                                                                       20080717
                           Α1
         R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU,
              IE, IS, IT, LI, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SI,
             SK, TR, AL, BA, MK, RS
PRAI US 2007-959877P
                                  20070717
                           Р
     US 2007-965595P
                           Р
                                  20070821
     WO 2008-US8764
                           W
                                  20080717
ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT
     The invention features compns. and methods employing combinations of an
     A2A receptor agonist and a PDE (phosphodiesterase) inhibitor for the
     treatment of a B-cell proliferative disorder, e q, multiple myeloma.
     at least one embodiment, the compns. of the invention comprise a PDE inhibitor active against at least two of PDE 2, 3,4, and 7. In at least
     one embodiment, the compns. of the invention comprises further
     administering an antiproliferative compound
     53296-10-9, CV 1808
ΙT
     RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL
     (Biological study); USES (Uses)
        (combinations for treatment of B-cell proliferative disorders using PDE
```

inhibitors and A2A receptor agonists and antiproliferative compds.)

Absolute stereochemistry.

53296-10-9 CAPLUS

Adenosine, 2-(phenylamino) - (CA INDEX NAME)

RN

OSC.G 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)
RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 14 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN 2008:1383562 CAPLUS AN DN 149:555078 The Stille reaction TΤ ΑU Farina, Vittorio; Krishnamurthy, Venkat; Scott, William J. CS Boehringer Ingelheim Pharmaceuticals, Ridgefield, CT, USA Organic Reactions (Hoboken, NJ, United States) (1997), 50, No pp. given SO CODEN: ORHNBA URL: http://www3.interscience.wiley.com/cgi-bin/mrwhome/107610747/HOME PB John Wiley & Sons, Inc. Journal; General Review; (online computer file) DT LA English OS CASREACT 149:555078 A review of the article The Stille reaction. AΒ 79936-11-1P TT RL: SPN (Synthetic preparation); PREP (Preparation)

Absolute stereochemistry.

79936-11-1 CAPLUS

(The Stille Reaction)

Adenosine, 2-cyano- (9CI) (CA INDEX NAME)

L6 ANSWER 15 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN

AN 2008:991314 CAPLUS

DN 149:200258

TI Cyanotributylstannane

AU Tanaka, Masato; Sakakura, Toshiyasu

CS Japan

RN

CN

SO e-EROS Encyclopedia of Reagents for Organic Synthesis (2001), No pp. given Publisher: John Wiley & Sons, Ltd., Chichester, UK. CODEN: 69KUHI

URL: http://www3.interscience.wiley.com/cgi-bin/mrwhome/104554785/HOME

DT Conference; General Review; (online computer file)

LA English

OS CASREACT 149:200258

AB A review of the article Cyanotributylstannane.

IT 79936-11-1P

RL: SPN (Synthetic preparation); PREP (Preparation) (Cyanotributylstannane)

RN 79936-11-1 CAPLUS

CN Adenosine, 2-cyano- (9CI) (CA INDEX NAME)

ANSWER 16 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN

2008:493012 CAPLUS AN

148:509885 DN

TΙ Compositions and methods for treating neurological disorders or damage

Diamandis, Phedias; Tyers, Mike; Dirks, Peter B.

PΑ Can.

Can. Pat. Appl., 3pp. SO

CODEN: CPXXEB

DT Patent

English LΑ

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|------------------|------|----------|-----------------|----------|
| | | | | | |
| PI | CA 2606658 | A1 | 20080413 | CA 2007-2606658 | 20071012 |
| | US 20090076019 | A1 | 20090319 | US 2007-871562 | 20071012 |
| PRAT | IIS 2006-851615D | P | 20061013 | | |

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

The invention relates to a clonogenic neurosphere assay to carry out high throughput screens (HTS) to identify potent and/or selective modulators of proliferation, differentiation and/or renewal of neural precursor cells, neural progenitor cells and/or self-renewing and multipotent neural stem cells (NSCs). The invention also relates to compns. comprising the identified modulators and methods of using the modulators and compns., in particular to treat neurol. disorders (e.g. brain or CNS cancer) or damage.

53296-10-9, 2-Phenylaminoadenosine

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL

(Biological study); USES (Uses)

(screening for compns. and methods for treating neurol. disorders or damage with modulators of neural stem cells)

RN

53296-10-9 CAPLUS Adenosine, 2-(phenylamino)- (CA INDEX NAME) CN

Absolute stereochemistry.

OSC.G 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

ANSWER 17 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN L6

2008:11519 CAPLUS AN

DN 148:100840

Preparation of nucleosides as therapeutic compounds for the treatment of pain and inflammation

Higginbottom, Michael; Savory, Edward Daniel; Brown, Giles Albert; Horgan, ΙN Viet-Anh Anne; Chapman, Emma Jane

PABiovitrum AB, Swed.

PCT Int. Appl., 70 pp. SO

CODEN: PIXXD2

DT Patent

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LA English
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| FAN. | | ENT : | | | | KIN | | DATE | | | APPL | ICAT | ION : | NO. | | D. | ATE | |
|-------|----|-------|------|-----|-----|-----|-----|------|------|------|-------|------|-------|------|-------|-----|------|------|
| PI | | 2008 | 0007 | 45 | | A2 | | 2008 | 0103 | | WO 2 | 007- | EP56: | 378 | | 2 | 0070 | 626 |
| | | W: | ΑE, | AG, | AL, | AM, | AT, | ΑU, | ΑZ, | BA, | BB, | BG, | BH, | BR, | BW, | BY, | BZ, | CA, |
| | | | CH, | CN, | CO, | CR, | CU, | CZ, | DE, | DK, | DM, | DO, | DZ, | EC, | EE, | EG, | ES, | FΙ, |
| | | | GB, | GD, | GE, | GH, | GM, | GT, | HN, | HR, | HU, | ID, | IL, | IN, | IS, | JP, | KE, | KG, |
| | | | KM, | KN, | KP, | KR, | KZ, | LA, | LC, | LK, | LR, | LS, | LΤ, | LU, | LY, | MA, | MD, | ME, |
| | | | MG, | MK, | MN, | MW, | MX, | MY, | ΜZ, | NA, | NG, | NΙ, | NO, | NZ, | OM, | PG, | PH, | PL, |
| | | | PT, | RO, | RS, | RU, | SC, | SD, | SE, | SG, | SK, | SL, | SM, | SV, | SY, | ΤJ, | TM, | TN, |
| | | | TR, | TT, | TZ, | UA, | UG, | US, | UZ, | VC, | VN, | ZA, | ZM, | ZW | | | | |
| | | RW: | | | | | | CZ, | | | | | | | | | | |
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| | | | | | | , | | GA, | | , | | | | | , | , | , | |
| | | | , | , | , | , | , | MZ, | , | , | , | , | , | UG, | ZM, | ZW, | AM, | ΑZ, |
| | | | , | , | | | | TJ, | , | | | | | | | | | |
| | | 2007 | | 28 | | | | | | | | | | | | | | |
| | | 2654 | | | | | | 2008 | | | | | | | | | 0070 | |
| | | 2008 | | | | | | | | | US 2 | 007- | 8233 | / / | | 2 | 0070 | 626 |
| | - | 7807 | | | | | | 2010 | | | | 007 | 7060 | - ^ | | 0 | 0070 | co.c |
| | EP | 2081 | | | | | | 2009 | | | | | | | | | | |
| | | R: | | | | , | | CZ, | | | , | | | | | , | | |
| | | | | | | мк, | | LV, | MC, | MI, | NL, | PL, | PI, | RU, | SE, | 51, | SK, | IK, |
| | TD | 2009 | | , | | , | | 2009 | 1126 | | TD 2 | 000 | 5171 | 75 | | 2 | 0070 | 626 |
| | | 2009 | | | | | | | | | | | | | | _ | | |
| | | 1014 | | | | | | | | | | 003- | | | | | 0081 | |
| DDAT | | 2006 | | | | | | 2006 | | | CIN Z | 007- | 0002. | 3/43 | | | 0001 | 224 |
| LICAL | | 2006 | | | | | | | | | | | | | | | | |
| | | 2007 | | | | W | | | | | | | | | | | | |
| ASST | | INT H | | | | | | | | LE T | N LS | US D | TSPL | AY F | ORMA | Т | | |
| OS | | SREAC | | | | | | | | | | D | | | 01411 | - | | |

CASREACT 148:100840; MARPAT 148:100840 GΙ

Ι

Nucleosides I, when X = Y = Z = OH, R1 is OCH2CF2CF3, phenoxy (substituted with 3-(4- trifluoromethylphenyl), 3,4-dichloro, (3-trifluoromethyl,4-fluoro), (3-trifluoromethyl,4- chloro), (3-chloro, 4-cyano), or 3,5-bis(trifluoromethyl)), 1-piperazinyl(4-(3,4-dichlorophenyl)), Ph (substituted with 3,4-dichloro, 3,5-difluoro, 3,5-bis(trifluoromethyl) or 3,4,5-trifluoro) or 2-benzofuranyl; or when X = Y = OH and Z = OMe, R1 is OCH3, OCH2CHF2, OCH2cyclopentyl, O-(2,5-difluorophenyl) or (S)-sec-butylamino; or when X = H and Y = Z = OH, R1 is n-hexylamino or cyclopentylamino; or when (IV) X = Z = OH and Y = H, R1 is cyclopentylamino; were prepared for the treatment of pain and inflammation. Thus, nucleoside I (X = Y = Z = OH, R1 = CH2CF2CF3) was prepared and tested for the treatment of pain and inflammation. 1000003-47-3P 1000003-48-4P 1000003-49-5P 1000003-50-8P 1000003-51-9P 1000003-52-0P 1000003-57-5P 1000003-53-1P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of nucleosides as therapeutic compds. for treatment of pain and inflammation)

RN 1000003-47-3 CAPLUS

CN Adenosine, 2-(2,2,3,3,3-pentafluoropropoxy)- (CA INDEX NAME)

Absolute stereochemistry.

RN 1000003-48-4 CAPLUS

CN Adenosine, 2-[[4'-(trifluoromethyl)[1,1'-biphenyl]-3-yl]oxy]- (CA INDEX NAME)

Absolute stereochemistry.

RN 1000003-49-5 CAPLUS

CN Adenosine, 2-(3,4-dichlorophenoxy)- (CA INDEX NAME)

Absolute stereochemistry.

RN 1000003-50-8 CAPLUS

CN Adenosine, 2-[4-fluoro-3-(trifluoromethyl)phenoxy]- (CA INDEX NAME)

10/598,520

RN 1000003-51-9 CAPLUS

CN Adenosine, 2-[4-chloro-3-(trifluoromethyl)phenoxy]- (CA INDEX NAME)

Absolute stereochemistry.

RN 1000003-52-0 CAPLUS

CN Adenosine, 2-(3-chloro-4-cyanophenoxy)- (CA INDEX NAME)

Absolute stereochemistry.

RN 1000003-53-1 CAPLUS

CN Adenosine, 2-[3,5-bis(trifluoromethyl)phenoxy]- (CA INDEX NAME)

Absolute stereochemistry.

RN 1000003-57-5 CAPLUS

CN Adenosine, 2-[3,5-bis(trifluoromethyl)phenyl]- (CA INDEX NAME)

Absolute stereochemistry.

OSC.G 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

L6 ANSWER 18 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN

McIntosh

```
AN
     2008:9613 CAPLUS
DN
     148:106191
     2',3'-Methylidene acetal adenosine prodrugs of improved oral absorption
ΤТ
     and their use as therapeutic analgesic or antiinflammatory compounds
ΤN
     Savory, Edward Daniel
PA
     Biovitrum AB, Swed.
     PCT Int. Appl., 64pp.
SO
     CODEN: PIXXD2
DT
     Patent
LΑ
     English
FAN.CNT 1
     PATENT NO.
                          KIND
                                  DATE
                                              APPLICATION NO.
                                                                       DATE
     WO 2008000743
                           A2
                                  20080103
                                              WO 2007-EP56375
                                                                       20070626
     WO 2008000743
                           А3
                                  20080221
         W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA,
             CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI,
              GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG,
             KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME,
             MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL,
             PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN,
             TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW
         RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, BF,
             BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ,
             BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA
                                  20080103
                                              AU 2007-263726
     AU 2007263726
                                                                       20070626
                           Α1
     CA 2657973
                           Α1
                                  20080103
                                              CA 2007-2657973
                                                                       20070626
     US 20080027081
                                  20080131
                                              US 2007-823335
                                                                       20070626
                           Α1
     EP 2066685
                                  20090610
                                              EP 2007-765638
                                                                       20070626
                           A2
         R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
             IS, IT, LI, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, AL, BA, HR, MK, RS
     JP 2009541436
                                  20091126
                                              JP 2009-517173
                                                                       20070626
                           Т
                                              IN 2008-KN4767
     IN 2008KN04767
                                  20090313
                                                                       20081125
                           Α
     CN 101479290
                           Α
                                  20090708
                                              CN 2007-80024647
                                                                       20081229
PRAI SE 2006-1396
                                  20060627
                           Α
     US 2006-837308P
                           P
                                  20060811
     WO 2007-EP56375
                           W
                                  20070626
ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT
     CASREACT 148:106191; MARPAT 148:106191
     The invention relates to a method of improving oral drug absorption of
     adenosine analogs by the use of 2',3'-methylidene acetal adenosine
     pro-drugs and to the use of these pro-drugs as medicaments. The invention
     further relates to compds. that are prodrugs of adenosine receptor
     agonists, and to their use as therapeutic compds., in particular as
     analgesic or anti-inflammatory compds., or as disease modifying
     antirheumatic drugs (DMARDs), and to methods of preventing, treating or
     ameliorating pain or inflammation using these compds. Thus, for a range
     of five 2-substituted adenosines of the current invention, the oral
     bioavailability in rats was found to increase on average from 19% to 53% and
     the oral half-life from 1.3 h to 3.2 h by employing a 2',3'-methylidene
     acetal prodrug strategy.
                    864061-84-7
     864061-82-5
                                 1000003-48-4
     1000003-53-1
     RL: BCP (Biochemical process); THU (Therapeutic use); BIOL (Biological
     study); PROC (Process); USES (Uses)
        (2',3'-Methylidene acetal adenosine prodrugs of improved oral
        absorption and their use as therapeutic analgesic or antiinflammatory
        compds.)
     864061-82-5 CAPLUS
     Adenosine, 2-(2,2-difluoroethoxy)- (CA INDEX NAME)
CN
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10/598,520

864061-84-7 CAPLUS RN

Adenosine, 2-(2,5-difluorophenoxy)- (CA INDEX NAME) CN

Absolute stereochemistry.

1000003-48-4 CAPLUS

CN Adenosine, 2-[[4'-(trifluoromethyl)[1,1'-biphenyl]-3-yl]oxy]- (CA INDEX NAME)

Absolute stereochemistry.

1000003-53-1 CAPLUS RN

Adenosine, 2-[3,5-bis(trifluoromethyl)phenoxy]- (CA INDEX NAME) CN

Absolute stereochemistry.

OSC.G THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (2 CITINGS)

ANSWER 19 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN 2007:1320679 CAPLUS L6

AN

148:135926 DN

- TI Effect of adenosine agonists on the proliferation and differentiation of chick embryo fibroblasts in three dimensional reconstituted tissue constructs
- AU Malihi, Golrokh; Elson, Elliot; Mascarenhas, Francesca
- CS Department of Biochemistry/Molecular Biophysics, School of medicine, Washington University, St. Louis, MO, 63110-8231, USA
- SO Iranian Journal of Pharmacology & Therapeutics (2006), 5(2), 151-157 CODEN: IJPTDG; ISSN: 1735-2657 URL: http://ijpt.iums.ac.ir/index.php/ijpt/article/view/060502151/237
- PB Razi Institute for Drug Research, Iran University of Medical Sciences and Health Services
- DT Journal; (online computer file)
- LA English
- Previous studies indicate that organ fibroblasts play an important role in wound healing, collagen production, remodeling processes and pathogenesis of progressive heart, lung, renal and hepatic fibrotic diseases. Several studies suggest a possible inhibitory role for adenosine in the regulation of fibroblast proliferation. The effect of adenosine A2 agonists on proliferation and differentiation of chick embryo skin/muscle fibroblasts was studied in collagen-based 3-dimensional tissue constructs and also in plated monolayer cells. Materials and Methods: Chick embryo primary fibroblasts were plated in sep. groups and were synchronized by growth arrest before stimulation by different doses of adenosine, and A2 receptor agonists, CV1808, NECA and an A2 receptor antagonist, CGS15943, and control, in the presence of serum or serum free medium. The cell counts for each treatment of monolayer fibroblasts were compared to determine fibroblast proliferation. Western blot anal., immunostaining and myofibroblast size measurements were conducted to measure the effect of adenosine on the fibroblast differentiation into myofibroblasts. Cell proliferation was also gauged with DNA assays in the 3-D constructs. Results: Adenosine agonists at low doses significantly reduced fibroblast proliferation in monolayer and 3-D cell culture in the presence of 5% Fetal Calf Serum (FCS) demonstrating a potential antifibrotic activity possibly by activation of the A2B receptor. Western blot anal. and immunostaining of cells revealed no significant inhibition of the expression of $\alpha\text{-smooth}$ muscle actin on a per cell basis by adenosine agonists. Cell size measurements indicated increased nos. of smaller fibroblasts suggesting that adenosine may inhibit the conversion of fibroblasts to myofibroblasts. Conclusion: This study suggests that agents that increase tissue cAMP levels may be of beneficial therapeutic value in organ tissue fibrosis.
- IT 53296-10-9, CV1808
 - RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 - (adenosine-5'N-ethylcarboxamide or CV1808 was associated with decrease in proliferation, differentiation and size in chick embryo fibroblast and can be useful in treatment of fibrosis)
- RN 53296-10-9 CAPLUS
- CN Adenosine, 2-(phenylamino) (CA INDEX NAME)

Absolute stereochemistry.

RE.CNT 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

- L6 ANSWER 20 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN
- AN 2007:873285 CAPLUS
- DN 147:242695
- TI Compounds useful as agonists of a2a adenosine receptors, cosmetic skin whitening compositions with a2a agonists and a method for using the same
- IN Nip, John Chun-Sing; Bosko, Carol Annette; Rosa, Jose Guillermo;

Harichian, Bijan; Santana, Isabel Cristina PAUnilever PLC, USA U.S. Pat. Appl. Publ., 8pp. SO CODEN: USXXCO DT Patent LΑ English FAN.CNT 1 PATENT NO. KIND DATE APPLICATION NO. DATE 20070809 US 20070183995 Α1 US 2006-350658 AU 2007214068 20070816 AU 2007-214068 20070125 Α1 WO 2007090553 20070816 WO 2007-EP847 20070125 A2 WO 2007090553 А3 20071101 W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA ZA 2008006447 Α 20091230 ZA 2008-6447 AR 59370 20080326 AR 2007-100527 20070208 Α1 IN 2008-MN1691 20081226 TN 2008MN01691 20080807 Α CN 101378725 Α 20090304 CN 2007-80004724 20080807 MX 2008010208 20081031 MX 2008-10208 20080808 Α KR 2008108418 20081215 KR 2008-7019553 20080808 Α PRAI US 2006-350658 Α 20060209 WO 2007-EP847 W 20070125 ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT MARPAT 147:242695 OS Compds. useful as agonists of A2A adenosine receptors are described. Also AB described is a cosmetically acceptable composition having an agonists of A2A reduce the effects of melanin, resulting in skin whitening. Thus, solns. of the A2A adenosine receptor agonists 2-para(2-carboxyethyl) phenethylamino-5'-N-Et carboxamido adenosine and

adenosine receptors where the composition is suitable to apply to human skin to phenylaminoadenosinehaving, of a final concentration of 3 μ M were prepared from a 10 mM DMSO stock solution and dosed on human skin equivalent (Melanoderm from Mattek). The colorimetric results showed that compns. with an agonist of A2A adenosine receptors could result in skin lightening.

ΙT 53296-10-9

RL: BSU (Biological study, unclassified); COS (Cosmetic use); BIOL (Biological study); USES (Uses)

(compds. useful as agonists of a2a adenosine receptors, cosmetic skin whitening compns. with a2a agonists and a method for using the same)

RN 53296-10-9 CAPLUS

Adenosine, 2-(phenylamino)- (CA INDEX NAME) CN

Absolute stereochemistry.

THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS) OSC.G

ANSWER 21 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN

2007:870078 CAPLUS AN

DN 147:340476

Determination of adenosine effects and adenosine receptors in murine

corpus cavernosum

- Tostes, Rita C.; Giachini, Fernanda R. C.; Carneiro, Fernando S.; Leite, ΑU Romulo; Inscho, Edward W.; Webb, R. Clinton
- Department of Pharmacology, Institute of Biomedical Sciences, University CS of Sao Paulo, Sao Paulo, Brazil
- Journal of Pharmacology and Experimental Therapeutics (2007), 322(2), SO 678-685 CODEN: JPETAB; ISSN: 0022-3565
- PB American Society for Pharmacology and Experimental Therapeutics
- DT
- LΑ English This study tested the hypothesis that adenosine, in murine corpora AB cavernosa, produces direct relaxation of smooth muscle cells and inhibition of contractile responses mediated by sympathetic nerve stimulation. Penes were excised from anesthetized male C57BL/6 mice, dissected, and cavernosal strips were mounted to record isometric force. Adenosine, 2-chloro-adenosine (stable analog of adenosine), and 2-phenylaminoadenosine (CV1808) (A2A/A2B agonist) produced concentration-dependent relaxations of phenylephrine-contracted tissues. Relaxation to 2-chloroadenosine was inhibited, in a concentration-dependent manner, by 2-(2-furanyl)-7-(2-phenylethyl)-7H-pyrazolo[4,3e][1,2,4]triazolo [1,5-c]pyrimidin-5-amine (SCH58261; A2A antagonist; 10-9-10-6 M) and N-(4-acetylphenyl)-2-[4-(2,3,6,7-tetrahydro-2,6-dioxo-1,3-dioxo-1, dipropyl-1H- purin-8-yl)phenoxy]acetamida (MRS1706; A2B antagonist; 10-8-10-6 M). The combination of both antagonists abrogated 2-chloroadenosine-induced relaxation. Elec. field stimulation (EFS; 1-32 Hz) of adrenergic nerves produced frequency-dependent contractions that were inhibited by compds. that increase adenosine levels, such as 5'-iodotubercidin (adenosine kinase inhibitor), erythro-9-(2-hydroxy-3-nonyl) adenine (adenosine deaminase inhibitor), and dipyridamole (inhibitor of adenosine transport). The adenosine A1 receptor agonist N6-cyclopentyladenosine (C8031) right-shifted contractile responses to EFS, with a significant inhibitory effect at 10-6 M. Blockade of adenosine Al receptors with 8-cyclopentyl-1,3-dipropylaxanthine (C101) (10-7 M) enhanced contractile responses to EFS and eliminated the inhibitory effects of 5'-iodotubercidin. Dipyridamole and 5'-iodotubercidin had no effect on adenosine-mediated relaxation. In summary, adenosine directly relaxes cavermosal smooth muscle cells, by the activation of A2A/A2B receptor subtypes. In addition, adenosine neg. modulates sympathetic neurotransmission, by A1 receptor subtype activation, in murine corpora cavernosa. Adenosine may subserve dual roles in modulating the physiol. mechanisms of erection in mice.
- 53296-10-9, 2-Phenylaminoadenosine TT
 - RL: BSU (Biological study, unclassified); BIOL (Biological study) (effects of adenosine and adenosine receptors in murine corpus cavernosum)
- RN
- 53296-10-9 CAPLUS Adenosine, 2-(phenylamino)- (CA INDEX NAME) CN

- THERE ARE 9 CAPLUS RECORDS THAT CITE THIS RECORD (10 CITINGS) OSC.G RE.CNT 39 THERE ARE 39 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT
- ANSWER 22 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN
- 2007:859948 CAPLUS AN
- DN 148:45665
- Effect of adenosine agonists on the proliferation and differentiation of chick embryo fibroblasts in three dimensional reconstituted tissue

constructs

- Malihi, Golrokh; Elson, Elliot; Mascarenhas, Francesca ΑU
- CS Department of Biochemistry/Molecular Biophysics, School of Medicine, Washington University in St. Louis, St. Louis, MO, USA
- SO Iranian Journal of Pharmacology & Therapeutics (2006), 5(2), 151-157 CODEN: IJPTDG; ISSN: 1735-2657
- URL: http://ijpt.iums.ac.ir/index.php/ijpt/article/view/060502151/237 PB Razi Institute for Drug Research, Iran University of Medical Sciences and Health Services
- Journal; (online computer file)
- LΑ English
- Previous studies indicate that organ fibroblasts play an important role in AB wound healing, collagen production, remodeling processes and pathogenesis of progressive heart, lung, renal and hepatic fibrotic diseases. Several studies suggest a possible inhibitory role for adenosine in the regulation of fibroblast proliferation. The effect of adenosine A2 agonists on proliferation and differentiation of chick embryo skin/muscle fibroblasts was studied in collagen-based 3-dimensional tissue constructs and also in plated monolayer cells. Materials and Methods: Chick embryo primary fibroblasts were plated in sep. groups and were synchronized by growth arrest before stimulation by different doses of adenosine, and A2 receptor agonists, CV1808, NECA and an A2 receptor antagonist, CGS15943, and control, in the presence of serum or serum free medium. The cell counts for each treatment of monolayer fibroblasts were compared to determine fibroblast proliferation. Western blot anal., immunostaining and myofibroblast size measurements were conducted to measure the effect of adenosine on the fibroblast differentiation into myofibroblasts. Cell proliferation was also gauged with DNA assays in the 3-D constructs. Results: Adenosine agonists at low doses significantly reduced fibroblast proliferation in monolayer and 3-D cell culture in the presence of 5% Fetal Calf Serum (FCS) demonstrating a potential antifibrotic activity possibly by activation of the A2B receptor. Western blot anal. and immunostaining of cells revealed no significant inhibition of the expression of a-smooth muscle actin on a per cell basis by adenosine agonists. Cell size measurements indicated increased nos. of smaller fibroblasts suggesting that adenosine may inhibit the conversion of fibroblasts to myofibroblasts. Conclusion: This study suggests that agents that increase tissue cAMP levels may be of beneficial therapeutic value in organ tissue fibrosis.
- 53296-10-9, CV1808
 - RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 - (adenosine A2 agonists like CV1808 increased cAMP production and inhibited proliferation of chick embryo fibroblast in 3-dimensional reconstituted tissue constructs)
- 53296-10-9 CAPLUS
- CN Adenosine, 2-(phenylamino)- (CA INDEX NAME)

Absolute stereochemistry.

RE.CNT 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

- ANSWER 23 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN L6
- ΑN 2007:705774 CAPLUS
- 147:110249 DN
- ТΙ Agents for treating neurodegenerative diseases
- Stockwell, Brent R.; Hoffstrom, Benjamin; Varma, Hemant IN
- PA
- SO U.S. Pat. Appl. Publ., 117pp., Cont.-in-part of US Ser. No. 498,110. CODEN: USXXCO

DT Patent English FAN.CNT 5

| 11111 | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|-------|-----------------|------|----------|-----------------|----------|
| ΡI | US 20070149543 | A1 | 20070628 | US 2006-612286 | 20061218 |
| | US 20050032124 | A1 | 20050210 | US 2004-767591 | 20040129 |
| | US 20070027164 | A1 | 20070201 | US 2006-349653 | 20060207 |
| | US 20070078144 | A1 | 20070405 | US 2006-498110 | 20060802 |
| PRAI | US 2003-443728P | P | 20030129 | | |
| | US 2003-457401P | P | 20030325 | | |
| | US 2003-467290P | P | 20030502 | | |
| | US 2003-482688P | P | 20030625 | | |
| | US 2003-496209P | P | 20030819 | | |
| | US 2004-767591 | В2 | 20040129 | | |
| | US 2004-837360 | A2 | 20040430 | | |
| | US 2006-349653 | A2 | 20060207 | | |
| | US 2006-498110 | A2 | 20060802 | | |
| | | | | | |

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

MARPAT 147:110249

AΒ The present invention relates to compds. effective in preventing neuronal cell death, which may be used in the treatment of neurodegenerative diseases. It is based, at least in part, on the discovery that particular compds. were effective in preventing neuronal death in model systems of Huntington's Disease.

53296-10-9, 2-Phenylaminoadenosine

RL: DMA (Drug mechanism of action); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (agents for treating neurodegenerative diseases)

53296-10-9 CAPLUS

CN Adenosine, 2-(phenylamino) - (CA INDEX NAME)

Absolute stereochemistry.

ANSWER 24 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN L6

AN 2007:643780 CAPLUS

DN 147:78751

Cosmetic composition containing a nonphosphate compound based on adenosine ТΤ

Rolland, Anne; Catroux, Philippe ΤN

PAL'Oreal, Fr.

Fr. Demande, 20pp.

CODEN: FRXXBL

DТ Patent LA

French

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---------------|------|----------|-----------------|----------|
| | | | | | |
| ΡI | FR 2894466 | A1 | 20070615 | FR 2005-53770 | 20051208 |
| PRAI | FR 2005-53770 | | 20051208 | | |

AΒ A cosmetic composition contains a nonphosphate compound based on adenosine and at least a vehicle in a quantity higher than 3% in weight, compared to the total weight of the composition The cosmetic is used for care of skin, more particularly wrinkled skin of the face. A cream contained adenosine 0.04, stearic acid 3.0, a mixture of glyceryl monostearate and polyethylene glycol stearate 2.5, PEG stearate 1.0, cyclopentasiloxane 10, silica 3.5, vegetable oils 7.0, synthetic oils 6.0, preservatives 1.2, siliongum 0.2, polyoxyethylene polydimethylsiloxane 1.0, Simugel-600 1.7, stearyl alc. 1, and water q.s. 100%.

53296-10-9, 2-Phenylaminoadenosine

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)

(cosmetic composition containing nonphosphate compound based on adenosine) RN 53296-10-9 CAPLUS CN Adenosine, 2-(phenylamino)- (CA INDEX NAME)

Absolute stereochemistry.

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PhNH N N OH
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OSC.G 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)
RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

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L6 ANSWER 25 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN
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AN 2007:438825 CAPLUS

DN 146:427844

TI Cosmetic composition containing a non-phosphate compound based on adenosine and a polymer

IN Catroux, Philippe; Rolland, Anne

PA L'Oreal, Fr.

SO PCT Int. Appl., 25pp.

CODEN: PIXXD2

DT Patent

LA French

FAN.CNT 1

| r AN. | PATENT | | | | KIN | D | DATE | | - | | ICAT: | | | | | ATE | |
|-------|--------------------------------|--------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| PI | WO 2007
WO 2007 | 0426 | 79 | | A2
A3 | | 2007
2007 | 0419 | 1 | | 006- | | | | | 0061 | |
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| PRAI | FR 2892017
AI FR 2005-53131 | | | | A1
A | , | 2007
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2005 | 0420
1014 | , | , | | 5313 | 1 | | 2 | 0051 | 014 |

AB The invention concerns a cosmetic composition comprising in a physiol. acceptable medium: at least one non-phosphate compound based on adenosine and at least a polymer, said polymer being different from a copolymer comprising units derived from styrene and units derived from (meth)acrylate. The invention also concerns a cosmetic method for skin care, more particularly facial skin, in particular wrinkled skin which consists in applying a composition on said skin. A lotion contained Hostacerin AMPS 2.00, preservatives 0.85, adenosine 0.50, Hybridur 875 17.00, and water q.s. 100%/.

IT 53296-10-9, 2-Phenylaminoadenosine

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses) (cosmetic composition containing non-phosphate compound based on adenosine and polymer)

RN 53296-10-9 CAPLUS

CN Adenosine, 2-(phenylamino)- (CA INDEX NAME)

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OSC.G 3 THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD (3 CITINGS)
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L6 ANSWER 26 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN AN 2007:384430 CAPLUS DN 146:372825
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TI Agents for treating neurodegenerative diseases

IN Stockwell, Brent R.; Hoffstrom, Benjamin; Varma, Hemant

PA Columbia University, USA

SO U.S. Pat. Appl. Publ., 99 pp., Cont.-in-part of U.S. Ser. No. 349,653. CODEN: USXXCO

DT Patent

LA English

FAN.CNT 5

| FAN. | | ENT | NO. | | | KIN | | DATE | | | APPL | ICAT | ION : | NO. | | D. | ATE | |
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| PI | US
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WO | 2007
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2003-443728P
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0129 | AP, | EA, | EP, | OA | | | | | |

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

20060207

20060802

Α2

A2

OS MARPAT 146:372825

US 2006-349653

US 2006-498110

AB The present invention relates to compds. effective in preventing neuronal cell death, which may be used in the treatment of neurodegenerative diseases. It is based, at least in part, on the discovery that particular compds. were effective in preventing neuronal death in model systems of Huntington's Disease.

IT 53296-10-9, 2-Phenylaminoadenosine

RL: DMA (Drug mechanism of action); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (agents for treating neurodegenerative diseases)

RN 53296-10-9 CAPLUS

CN Adenosine, 2-(phenylamino)- (CA INDEX NAME)

ANSWER 27 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN

AN 2007:328553 CAPLUS

146:501286 DN

Structure-Activity Relationships of 2,N6,5'-Substituted Adenosine TΙ Derivatives with Potent Activity at the A2B Adenosine Receptor

ΑU Adachi, Hayamitsu; Palaniappan, Krishnan K.; Ivanov, Andrei A.; Bergman, Nathaniel; Gao, Zhan-Guo; Jacobson, Kenneth A.

Molecular Recognition Section, Laboratory of Bioorganic Chemistry, CS National Institute of Diabetes and Digestive and Kidney Diseases, National Institutes of Health, Bethesda, MD, 20892, USA Journal of Medicinal Chemistry (2007), 50(8), 1810-1827

SO CODEN: JMCMAR; ISSN: 0022-2623

American Chemical Society

DT Journal

LA English

OS CASREACT 146:501286

2, N6, and 5'-substituted adenosine derivs. were synthesized via alkylation of 2-oxypurine nucleosides leading to 2-arylalkyl-ether derivs. 2-(3-(Indoly1)ethy1-oxy)adenosine (I) was examined in both binding and cAMP assays and found to be a potent agonist of the human A2BAR. Simplification, altered connectivity, and mimicking of the indole ring of I failed to maintain A2BAR potency. Introduction of N6-Et or N6-guanidino substitution, shown to favor A2BAR potency, failed to enhance potency in the 2-(3-(indoly1)ethyloxy) adenosine series. Indole 5''- or 6''-halo substitution was favored at the A2BAR, but a 5'-N-ethylcarboxyamide did not further enhance potency. 2-(3''-(6''-Bromoindolyl)ethyloxy)adenosine (II) displayed an A2BAR EC50 value of 128 nM, i.e., more potent than the parent I (299 nM) and similar to 5'-N-ethylcarboxamidoadenosine (140 nM). Compound II was a full agonist at A2B and A2AARs and a low efficacy partial agonist at A1 and A3ARs. Thus, we have identified and optimized 2-(2-arylethyl)oxo moieties in AR agonists that enhance A2BAR potency and selectivity.

131865-81-1P 145747-87-1P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(structure-activity relationships of 2,N6,5'-substituted adenosine derivs. with potent activity at A2B adenosine receptor)

RN 131865-81-1 CAPLUS

Adenosine, 2-(4-phenylbutoxy)- (CA INDEX NAME) CN

Absolute stereochemistry.

145747-87-1 CAPLUS RN

CNAdenosine, 2-[(3S)-3-phenylbutoxy]- (CA INDEX NAME)

OSC.G 15 THERE ARE 15 CAPLUS RECORDS THAT CITE THIS RECORD (15 CITINGS)
RE.CNT 46 THERE ARE 46 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 28 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN

AN 2007:245615 CAPLUS

DN 146:474750

TI Three-Dimensional Quantitative Structure-Activity Relationship of Nucleosides Acting at the A3 Adenosine Receptor: Analysis of Binding and Relative Efficacy

AU Kim, Soo-Kyung; Jacobson, Kenneth A.

CS Molecular Recognition Section Laboratory of Bioorganic Chemistry, National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK), National Institutes of Health (NIH), Bethesda, MD, 20892, USA

SO Journal of Chemical Information and Modeling (2007), 47(3), 1225-1233 CODEN: JCISD8; ISSN: 1549-9596

PB American Chemical Society

DT Journal

LA English

AB

The binding affinity and relative maximal efficacy of human A3 adenosine receptor (AR) agonists were each subjected to ligand-based three-dimensional quant. structure-activity relation anal. mol. field anal. (CoMFA) and comparative mol. similarity indexes anal. (CoMSIA) used as training sets a series of 91 structurally diverse adenosine analogs with modifications at the N6 and C2 positions of the adenine ring and at the 3', 4', and 5' positions of the ribose moiety. The CoMFA and CoMSIA models yielded significant cross-validated q2 values of 0.53 (r2 = 0.92) and 0.59 (r2 = 0.92), resp., and were further validated by an external test set (25 adenosine derivs.), resulting in the best predictive r2 values of 0.84 and 0.70 in each model. Both the CoMFA and the CoMSIA maps for steric or hydrophobic, electrostatic, and hydrogen-bonding interactions well reflected the nature of the putative binding site previously obtained by mol. docking. A conformationally restricted bulky group at the N6 or C2 position of the adenine ring and a hydrophilic and/or H-bonding group at the 5' position were predicted to increase A3AR binding affinity. A small hydrophobic group at N6 promotes receptor activation. A hydrophilic and hydrogen-bonding moiety at the 5' position appears to contribute to the receptor activation process, associated with the conformational change of transmembrane domains 5, 6, and 7. The 3D-CoMFA/CoMSIA model correlates well with previous receptor-docking results, current data of A3AR agonists, and the successful conversion of the A3AR agonist into antagonists by substitution (at N6) or conformational constraint (at 5'-N-methyluronamide). 50257-95-9, 50257-82-4 50257-85-7 2-Hexyloxyadenosine 131865-78-6 131865-81-1 131865-82-2 131933-15-8 RL: PAC (Pharmacological activity); PRP (Properties); BIOL (Biological

(QSAR of nucleosides acting at A3 adenosine receptor)

RN 50257-82-4 CAPLUS

study)

CN Adenosine, 2-phenoxy- (CA INDEX NAME)

50257-85-7 CAPLUS RN

Adenosine, 2-(pentyloxy)- (CA INDEX NAME) CN

Absolute stereochemistry.

50257-95-9 CAPLUS

CN Adenosine, 2-(hexyloxy)- (CA INDEX NAME)

Absolute stereochemistry.

RN

131865-78-6 CAPLUS Adenosine, 2-(phenylmethoxy)- (CA INDEX NAME) ${\tt CN}$

Absolute stereochemistry.

131865-81-1 CAPLUS RN

Adenosine, 2-(4-phenylbutoxy)- (CA INDEX NAME)

131865-82-2 CAPLUS RN

Adenosine, 2-[(5-phenylpentyl)oxy]- (CA INDEX NAME) CN

Absolute stereochemistry.

131933-15-8 CAPLUS

Adenosine, 2-(3-methylbutoxy)- (CA INDEX NAME) CN

Absolute stereochemistry.

THERE ARE 9 CAPLUS RECORDS THAT CITE THIS RECORD (9 CITINGS) THERE ARE 39 CITED REFERENCES AVAILABLE FOR THIS RECORD OSC.G RE.CNT 39 ALL CITATIONS AVAILABLE IN THE RE FORMAT

Г6 ANSWER 29 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN

2007:119050 CAPLUS AN

DN 146:198709

ΤI Neuroprotective agents for treating neurodegenerative diseases

Stockwell, Brent R.; Hoffstrom, Benjamin; Varma, Hemant Columbia University, USA IN

PA

SO U.S. Pat. Appl. Publ., 83 pp., Cont.-in-part of U.S. Ser. No. 837,360. CODEN: USXXCO

DT Patent

LA English

| F | AN.CNT 5 | | | | |
|---|---------------------|------|----------|-----------------|----------|
| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
| | | | | | |
| P | I US 20070027164 | A1 | 20070201 | US 2006-349653 | 20060207 |
| | US 20050032124 | A1 | 20050210 | US 2004-767591 | 20040129 |
| | US 20070078144 | A1 | 20070405 | US 2006-498110 | 20060802 |
| | US 20070149543 | A1 | 20070628 | US 2006-612286 | 20061218 |
| P | RAI US 2003-443728P | P | 20030129 | | |
| | US 2003-457401P | P | 20030325 | | |
| | US 2003-467290P | P | 20030502 | | |
| | US 2003-482688P | P | 20030625 | | |
| | US 2003-496209P | P | 20030819 | | |
| | US 2004-767591 | A2 | 20040129 | | |
| | | | | | |

US 2004-837360 A2 20040430 US 2006-349653 A2 20060207 US 2006-498110 A2 20060802 ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT MARPAT 146:198709 The invention relates to compds. effective in preventing neuronal cell death, which may be used in the treatment of neurodegenerative diseases. It is based, at least in part, on the discovery that particular chemotherapeutic compds. were effective in preventing neuronal death in model systems of Huntington's Disease. 53296-10-9, 2-Phenylaminoadenosine RL: DMA (Drug mechanism of action); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(agents for treating neurodegenerative diseases)

RN 53296-10-9 CAPLUS

Adenosine, 2-(phenylamino)- (CA INDEX NAME) CN

Absolute stereochemistry.

1.6 ANSWER 30 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN

2006:854003 CAPLUS AN

146:221613 DN

Cloning and pharmacological characterization of the equine adenosine A2A TT receptor: a potential therapeutic target for the treatment of equine

Brandon, C. I.; Vandenplas, M.; Dookwah, H.; Linden, J.; Murray, T. F. Departments of Physiology and Pharmacology, College of Veterinary ΑU

CS

Medicine, University of Georgia, Athens, GA, USA

SO Journal of Veterinary Pharmacology and Therapeutics (2006), 29(4), 243-253 CODEN: JVPTD9; ISSN: 0140-7783

Blackwell Publishing Ltd. PB

DT Journal

LΑ English

AΒ The aim of the current study was to clone the equine adenosine A2A receptor gene and to establish a heterologous expression system to ascertain its pharmacol. profile via radioligand binding and functional assays. An eA2A-R expression construct was generated by ligation of the eA2A cDNA into the pcDNA3.1 expression vector, and stably transfected into human embryonic kidney cells (HEK). Binding assays identified those clones expressing the eA2A-R, and equilibrium saturation isotherm expts. were utilized to determine dissociation consts. (KD), and receptor densities (Bmax) of selected clones. Equilibrium competition binding revealed a rank order of agonist potency of ATL > CV-1808 > NECA > 2-CADO > CGS21680, and a rank order of antagonist potency as ZM241385>8-phenyltheophylline > p-sulfophenyltheophylline > caffeine. Furthermore, adenylate cyclase assays using selective A2A-R agonists revealed that the eA2A-R functionally coupled to $\mbox{G}\alpha s$ as indicated by an increase in intracellular [3H]cAMP upon receptor activation. Finally, NF-KB reporter gene assays revealed a CGS21680 concentration-dependent inhibition of $NF-\kappa B$ activity. These results indicate that the heterologously expressed eA2A-R has a pharmacol. profile similar to that of other mammalian A2A receptors and thus can be utilized for further characterization of the eA2A-R to ascertain whether it can serve as a suitable pharmacol. target for equine inflammatory disease. 53296-10-9, CV-1808 ΤТ

RL: BSU (Biological study, unclassified); BIOL (Biological study) (binding potentials of equine adenosine A2A receptor were determined by using adenosine A2A receptor agonist CV-1808 in human embryonic kidney cells)

RN 53296-10-9 CAPLUS CN Adenosine, 2-(phenylamino) - (CA INDEX NAME)

Absolute stereochemistry.

OSC.G 7 THERE ARE 7 CAPLUS RECORDS THAT CITE THIS RECORD (7 CITINGS)
RE.CNT 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 31 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN

AN 2006:756818 CAPLUS

DN 145:203066

- TI Functional coupling of the Gaolf variant XLGaolf with the human adenosine A2A receptor
- AU Ravyn, Vipa; Bostwick, J. Robert
- CS Lead Discovery, AstraZeneca Pharmaceuticals, Wilmington, DE, USA
- SO Journal of Receptors and Signal Transduction (2006), 26(4), 241-258 CODEN: JRSTCT
- PB Taylor & Francis, Inc.
- DT Journal
- LA English
- AB A recently identified novel $G\alpha$ olf variant, XLG α olf, is shown to functionally couple to the human adenosine A2A receptor (A2AR). In Sf9 cells expressing A2AR, β 1, and γ 2, co-expression of XLG α olf increased NECA-induced [35S]GTP γ S binding from approx. 130% to 300% of basal levels. Pharmacol. characteristics of A2AR ligands on these cells were evaluated by using [3H]ZM241385- and [35S]GTP γ S-binding assays. The rank order of the equilibrium binding consts. (Kd or Ki) of adenosine receptor ligands were [3H]ZM241385 \approx CGS15943 < MRS1220 < < CV1808 \approx NECA < CGS21680 pprox adenosine < IBMECA < HEMADO pprox CPA pprox CCPA. The rank order of EC50 values for agonists were CV1808 ≈ NECA < adenosine \approx CGS26180 < IBMECA < HEMADO \approx CPA \approx CCPA. This pharmacol. is consistent with the literature for A2AR and suggests that Sf9 cells co-expressing A2AR, β 1, γ 2, and $\text{XLG}\alpha$ olf could serve as a heterologous expression system for A2AR drug screening.
- IT 53296-10-9, CV1808
 - RL: BSU (Biological study, unclassified); PKT (Pharmacokinetics); BIOL (Biological study)

(functional coupling of $G\alpha$ olf variant XLG α olf with the human adenosine A2A receptor)

RN 53296-10-9 CAPLUS

CN Adenosine, 2-(phenylamino) - (CA INDEX NAME)

Absolute stereochemistry.

OSC.G 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)
RE.CNT 42 THERE ARE 42 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

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L6 ANSWER 32 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN
AN 2006:365436 CAPLUS
DN 144:412837
TI Preparation of substituted adenine nucleosides as antibacterial agents
IN Cavero-Tomas, Marta; Gowravaram, Madhu; Huynh, Hoan; Ni, Haihong; Stokes, Suzanne
PA Astrazeneca AB, Swed.; Astrazeneca Uk Limited
SO PCT Int. Appl., 180 pp.
CODEN: PIXXD2
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DT Patent LA English FAN.CNT 1

| r Alv. | | | | | | | KIND DATE | | | | APPL | ICAT | ION : | | DATE | | | | | |
|--------|----------------------|-----------------------------|-----|-----|-----|--------------------------|-----------|-------|-------|---|-------|----------|----------|----------------------|------|-----|--------|-----|--|--|
| PI | WO | 2006040558
W: AE, AG, AL | | | | A1 | _ | 2006 | 0420 | | WO 2 |
005- |
GB39 |
34 | | 2 | 0051 | 013 | | |
| | | W: | ΑE, | ΑG, | AL, | AM, | ΑT, | ΑU, | ΑZ, | BA, | BB, | BG, | BR, | BW, | BY, | ΒZ, | CA, | CH, | | |
| | | | CN, | CO, | CR, | CU, | CZ, | DE, | DK, | DM, | DZ, | EC, | EE, | EG, | ES, | FΙ, | GB, | GD, | | |
| | | | GE, | GH, | GM, | HR, | HU, | ID, | IL, | IN, | IS, | JP, | KE, | KG, | ΚM, | KP, | KR, | KΖ, | | |
| | | | LC, | LK, | LR, | LS, | LΤ, | LU, | LV, | LY, | MA, | MD, | MG, | MK, | MN, | MW, | MX, | MZ, | | |
| | | | NA, | NG, | NΙ, | NO, | NZ, | OM, | PG, | PH, | PL, | PT, | RO, | RU, | SC, | SD, | SE, | SG, | | |
| | | | SK, | SL, | SM, | SY, | ΤJ, | TM, | TN, | TR, | TΤ, | TΖ, | UA, | UG, | US, | UZ, | VC, | VN, | | |
| | | | YU, | ZA, | ZM, | ZW | | | | | | | | | | | | | | |
| | RW: AT, BE, BG | | | | BG, | CH, | CY, | CZ, | DE, | DK, | EE, | ES, | FΙ, | FR, | GB, | GR, | HU, | IE, | | |
| | IS, IT, LT | | | | , | , | , | , | , | , | , | , | , | , | , | , | , | , | | |
| | CF, CG, CI | | | | | | | | | | | | | | | | | | | |
| | GM, KE, LS | | | | | | | | SD, | SL, | SZ, | TΖ, | UG, | ZM, | ZW, | ΑM, | ΑZ, | BY, | | |
| | | | , | KΖ, | , | , | | | | | | | | | | | | | | |
| | EP | | | | | | | | | EP 2005-792667
DK, EE, ES, FI, FR, G | | | | | | | | | | |
| | | R: | | | | | | | | | , | | | | | | | IE, | | |
| | | | , | | , | , | | LV, | | | , | | | | | | | | | |
| | | 1010 | | | | | | | | | | | | | | _ | 0051 | | | |
| | | 2008 | | | | | | 2008 | | | | | | | | _ | 0051 | | | |
| | | 5139. | _ | 000 | | | | 2007 | | | | | | | | | | | | |
| | | 2009 | | | | | | | | | | | | 20070413
20070504 | | | | | | |
| DDAT | IN 2007DN03360 | | | | | | | 2007 | | | IN 2 | 007- | DN33 | 6 U | | | JU /U: | 504 | | |
| PRAI | | | | | | P 20041015
P 20050318 | | | | | | | | | | | | | | |
| | US 2005-663459P | | | | | | | | | | | | | | | | | | | |
| | WO 2005-GB3934 | | | | | _ | | 2005 | | | | | | | | | | | | |
| ACCT | | | | | | | | | | т ч | M T C | TTC D | TCDI | AV E | ADM7 | T | | | | |
| ASSI | SIGNMENT HISTORY FOR | | | | | o PA | T TO IN I | . AVA | TUAD. | ne T | и гр | US D | торь. | AI I | | Т | | | | |

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT OS CASREACT 144:412837; MARPAT 144:412837

Adenine nucleosides I, wherein X is O, CH2; Y is O, S, CO, CH2, CH=CH, SO, SO2; Y and R taken together form heterocycle; R is alkyl, alkenyl, alkynyl, carbocycle, sulfonyl, acyl, heterocycle; R1-R3 are independently H, OH, CN, N3, alkyl,l carbocycle, halogen, acyl, O-acyl, sulfonyl, oxime, alkenyl, alkynyl, heterocycle, alkoxy, substituted amine; were prepared and their use in the treatment of bacterial infections is reported. Thus, $9-[3-bromo-3,5-dideoxy-5-fluoro-2-O-[(isopropylamino)carbonyl]-\beta-D-xylofuranosyl]-2-(cyclopentyl-oxy)-9H-purin-6-amine was prepared and tested in vitro as antibacterial agent. A method for inhibition of bacterial DNA ligase in a warm-blooded animal, such as a human, in need of such treatment which comprises administering to human an effective amount of title compds. The compds. described have a measured IC50 of 0.5-1.8 <math display="inline">\mu\rm M$ range in vitro against at least one isoenzyme (S. pneumoniae, S. aureus, H. influenzae, E. coli, or M. pneumoniae) of < 400 $\mu\rm M$ or the compds.

inhibited the ligation reaction by >20 % at the limit of their solubility in the assay medium. A formulation intended for oral administration to humans will generally contain, for example, from 0.5 mg to 2 g of active agent compounded with an appropriate and convenient amount of excipient which may vary from about 5 to about 98 percent by weight of the total composition Dosage unit forms will generally contain about 1 mg to about 500 mg of an active ingredient.

131865-78-6P 756818-76-5P 883729-40-6P 883729-41-7P 883731-37-1P 883731-38-2P RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of substituted adenine nucleosides as antibacterial agents)

131865-78-6 CAPLUS

Adenosine, 2-(phenylmethoxy)- (CA INDEX NAME) CN

Absolute stereochemistry.

756818-76-5 CAPLUS RN

Adenosine, 2-(cyclopentylmethoxy)- (9CI) (CA INDEX NAME) CN

Absolute stereochemistry.

883729-40-6 CAPLUS RN

CN Adenosine, 2-[[1-(trifluoromethyl)cyclobutyl]methoxy]- (9CI) (CA INDEX

Absolute stereochemistry.

883729-41-7 CAPLUS

CN Adenosine, 2-[(2,3,3-trifluorocyclobutyl)methoxy]- (9CI) (CA INDEX NAME)

RN 883731-37-1 CAPLUS

Adenosine, 2-(cyclobutylmethoxy)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

883731-38-2 CAPLUS

CN Adenosine, 2-(2,2,2-trifluoroethoxy)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

osc.g 6 THERE ARE 6 CAPLUS RECORDS THAT CITE THIS RECORD (6 CITINGS) THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD RE.CNT 11

ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 33 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN L6

2005:1004549 CAPLUS AN

DN 143:286636

TΙ Preparation of nucleosides as adenosine receptors and used for the treatment of pain and inflammation

Pritchard, Martyn; Ouzman, Jacqueline; Savory, Edward; Brown, Giles ΤN

Cambridge Biotechnology Limited, UK PA

SO PCT Int. Appl., 81 pp.

CODEN: PIXXD2 DT Patent

LA English

| FAN. | CNT | 2 | | | | | | | | | | | | | | | | | |
|------|----------------|------|------|-----|-----|-----|-----|------|------|-----|------|------|-------|-----|-----|-----|------|-----|--|
| | PA: | CENT | NO. | | | KIN | D | DATE | | | APPL | ICAT | ION : | NO. | | D | ATE | | |
| | | | | | | | _ | | | | | | | | | | | | |
| PI | WO | 2005 | 0846 | 53 | | A2 | | 2005 | 0915 | | WO 2 | 005- | GB80 | 0 | | 2 | 0050 | 304 | |
| | WO 2005084653 | | | | | А3 | | 2006 | 0518 | | | | | | | | | | |
| | W: AE, AG, AL, | | | AL, | AM, | ΑT, | ΑU, | ΑZ, | ΒA, | BB, | BG, | BR, | BW, | BY, | BZ, | CA, | CH, | | |
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| | GE, GH, GM, | | | | GM, | HR, | HU, | ID, | ΙL, | IN, | IS, | JP, | KE, | KG, | KP, | KR, | ΚZ, | LC, | |

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             SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
         RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,
             AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,
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                                 20040916
     WO 2004079329
                           A2
                                              WO 2004-GB902
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                                 20041209
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             GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
             LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI
         RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE,
             BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU,
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     AU 2005218997
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                                              AU 2005-218997
                                                                      20050304
                           A 1
     CA 2557285
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     EP 1749016
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                                                                      20050304
                           A2
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     CN 1946732
                                 20070411
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     BR 2005008488
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     JP 2007526291
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     NO 2006004365
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                                 20061122
                                              NO 2006-4365
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     KR 2007004792
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                                              KR 2006-7020304
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     IN 2006CN03674
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                                              IN 2006-CN3674
                                                                      20061005
                           Α
     US 20080221060
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PRAI GB 2004-5009
                           Α
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     GB 2004-5012
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                           Α
     WO 2004-GB902
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     GB 2004-12261
                           Α
                                 20040602
     GB 2004-12262
                           Α
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     GB 2004-13627
                                 20040618
                           Α
     GB 2004-19718
                                 20040906
                           Α
     GB 2004-20063
                           Α
                                 20040909
     GB 2004-20615
                                 20040916
                           Α
     GB 2003-5153
                           Α
                                 20030307
     WO 2005-GB800
                                 20050304
                           W
ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT
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ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT OS CASREACT 143:286636; MARPAT 143:286636

Nucleosides I, wherein X is H, OH; R is H, Me; R1 is H, alkoxy, OCH2-cyclopropyl, OCH2-cyclopentyl, phenoxy, OCH2CH2OH, OCH2CH2F2, (5-indanyl)oxy, alkylamino, cyclo-alkylamino, exo-norbornane, amino, phenylamino; R2 is NH2, CH2OH, NMe2, methylamino, isoamyl; R3 is CH2OH, amide, CH2NHCOPr-n, CH2NHCONHEt; were prepared and used for the treatment of pain and inflammation. Title nucleosides were prepared and used the treatment of pain associated with cancer, pancreatic pain, pain associated with

TΤ

HIV infection, chronic neuropathic pain, lower back pain, failed back surgery pain, back pain, post-operative pain, post phys. trauma pain, cardiac pain, chest pain, joint pain, neck pain, bowel pain, phantom limb pain, obstetric pain, acute herpes zoster pain, acute pancreatitis breakthrough pain, or for the prevention, treatment, or amelioration of neuropathic or other pain caused by, or associated with diabetic neuropathy, poly-neuropathy, fibromyalgia, myo-fascial pain syndrome, osteoarthritis, post herpetic neuralgia, rheumatoid arthritis, sciatica/lumbar radiculopathy, spinal stenosis, trigeminal neuralgia, renal colic, dysmenorrhea/endometriosis. Thus, I (R = H, R1 = OMe, R2 = NH1, R3 = CH2OH) was prepared and tested for the treatment of pain and inflammation.

50257-89-1P 50257-82-4P 50257-84-6P 50257-95-9P 53296-10-9P 53296-19-8P 70255-72-0P 71231-79-3P 79936-11-1P 756818-70-9P 756818-71-0P 756818-72-1P 756818-73-2P 756818-76-5P 756818-78-7P 864061-82-5P 864061-83-6P 864061-84-7P 864061-85-8P 864061-86-9P 864061-87-0P 864061-88-1P 864061-89-2P 864061-90-5P 864061-91-6P 864061-94-9P 864061-95-0P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of nucleosides as adenosine receptors and used for the treatment of pain and inflammation)

RN 50257-82-4 CAPLŪS

CN Adenosine, 2-phenoxy- (CA INDEX NAME)

Absolute stereochemistry.

RN 50257-84-6 CAPLUS

CN Adenosine, 2-butoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 50257-89-1 CAPLUS

CN Adenosine, 2-(2-hydroxyethoxy)- (9CI) (CA INDEX NAME)

RN 50257-95-9 CAPLUS CN Adenosine, 2-(hexyloxy)- (CA INDEX NAME)

Absolute stereochemistry.

RN 53296-10-9 CAPLUS

CN Adenosine, 2-(phenylamino)- (CA INDEX NAME)

Absolute stereochemistry.

RN 53296-19-8 CAPLUS

CN Adenosine, 2-[(4-methoxyphenyl)amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 70255-72-0 CAPLUS

CN Adenosine, 2-(aminocarbonyl)- (9CI) (CA INDEX NAME)

RN

71231-79-3 CAPLUS Adenosine, 2-[(4-fluorophenyl)amino]- (9CI) (CA INDEX NAME) CN

Absolute stereochemistry.

79936-11-1 CAPLUS

CN Adenosine, 2-cyano- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 756818-70-9 CAPLUS

Adenosine, 2-(4-cyanophenoxy)- (9CI) (CA INDEX NAME) ${\tt CN}$

Absolute stereochemistry.

756818-71-0 CAPLUS RN

Adenosine, 2-([1,1'-biphenyl]-3-yloxy)- (9CI) (CA INDEX NAME)

756818-72-1 CAPLUS RN

Adenosine, 2-[(2,3-dihydro-1H-inden-5-yl)oxy]- (9CI) (CA INDEX NAME) CN

Absolute stereochemistry.

RN

756818-73-2 CAPLUS Adenosine, 2-[3-(1-methylethyl)phenoxy]- (9CI) (CA INDEX NAME) ${\tt CN}$

Absolute stereochemistry.

756818-76-5 CAPLUS RN

CN Adenosine, 2-(cyclopentylmethoxy)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

756818-78-7 CAPLUS RN

Adenosine, 2-heptyl- (9CI) (CA INDEX NAME)

Me (CH₂)
$$_{6}$$
 N N R R OH

864061-82-5 CAPLUS RN

Adenosine, 2-(2,2-difluoroethoxy)- (CA INDEX NAME) CN

Absolute stereochemistry.

864061-83-6 CAPLUS

Adenosine, 2-(cyclopropylmethoxy)- (9CI) (CA INDEX NAME) CN

Absolute stereochemistry.

RN

864061-84-7 CAPLUS Adenosine, 2-(2,5-difluorophenoxy)- (CA INDEX NAME) ${\tt CN}$

Absolute stereochemistry.

864061-85-8 CAPLUS RN

Adenosine, 2-(2,4-difluorophenoxy)- (9CI) (CA INDEX NAME)

864061-86-9 CAPLUS RN

Adenosine, 2-(3,4-difluorophenoxy)- (9CI) (CA INDEX NAME) CN

Absolute stereochemistry.

864061-87-0 CAPLUS

CN Adenosine, 2-(2,3,5-trifluorophenoxy)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN

864061-88-1 CAPLUS Adenosine, 2-(4-fluoro-3-methylphenoxy)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

864061-89-2 CAPLUS RN

Adenosine, 2-(2-methylphenoxy)- (9CI) (CA INDEX NAME) CN

RN 864061-90-5 CAPLUS

CN Adenosine, 2-(3-bromophenoxy)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 864061-91-6 CAPLUS

CN Adenosine, 2-(4-methylphenoxy)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 864061-94-9 CAPLUS

CN Adenosine, 2-[(2,2,3,3-tetrafluorocyclobutyl)oxy]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 864061-95-0 CAPLUS

CN Adenosine, 2-(3,5-dimethylphenyl)- (9CI) (CA INDEX NAME)

OSC.G 4 THERE ARE 4 CAPLUS RECORDS THAT CITE THIS RECORD (4 CITINGS)

L6 ANSWER 34 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN

2005:44237 CAPLUS AN

DN 142:290603

A radial distribution function approach to predict A2B agonist effect of TT adenosine analogues

ΑU Gonzalez, Maykel Perez; Teran, Carmen; Fall, Yaqamare; Teijeira, Marta; Besada, Pedro

Unit of Services, Department of Drug Design, Experimental Sugar Cane CS Station 'Villa Clara-Cienfuegos', Ranchuelo, Cuba Bioorganic & Medicinal Chemistry (2005), 13(3), 601-608

SO CODEN: BMECEP; ISSN: 0968-0896

PB Elsevier Ltd.

DT Journal

LAEnglish

AΒ The radial distribution function (RDF) approach has been applied to the study of the A2B agonist effect of a set of 89 adenosine analogs reported with this activity. A model able to describe more than 70% of the variance in the exptl. activity was developed with the use of the mentioned approach. In contrast, none of the eleven different approaches including the use of Constitutional, Topol., Mol. walk count, BCUT, Galvez topol. charge indexes, 2D autocorrelations, Randic mol. profiles, Geometrical, 3D Morse, WHIM and GETAWAY descriptors was able to explain more than 47% of the variance in the mentioned property with the same number of descriptors.

53296-10-9

RL: PAC (Pharmacological activity); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(radial distribution function approach to predict A2B agonist effect of adenosine analogs)

53296-10-9 CAPLUS

CN Adenosine, 2-(phenylamino) - (CA INDEX NAME)

Absolute stereochemistry.

THERE ARE 21 CAPLUS RECORDS THAT CITE THIS RECORD (21 CITINGS) OSC.G 21

RE.CNT 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

1.6 ANSWER 35 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN

2005:34766 CAPLUS AN

DN 142:127629

Compositions and methods for use of a protease inhibitor and adenosine for ΤI preventing organ ischemia and reperfusion injury

ΤN Vinten-Johansen, Jakob

Emory University, USA PA

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SO
     PCT Int. Appl., 82 pp.
     CODEN: PIXXD2
DT
     Patent.
T.A
     English
FAN.CNT 1
                            KIND
     PATENT NO.
                                    DATE
                                                 APPLICATION NO.
                                                                           DATE
PТ
     WO 2005003150
                            A2
                                    20050113
                                                 WO 2004-US21387
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     WO 2005003150
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              NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY,
              TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
          RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,
              AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE,
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     CA 2531062
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ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT
     Methods and compns. including combined use of a serine protease inhibitor
     and adenosine or adenosine agonist when administered as a single
     pharmaceutical composition, concomitantly or sequentially in any order to a
     living subject for preventing organ ischemia or reperfusion injury. The
     methods and compns. disclosed herein can be used in such procedures as
     cardiac surgery, non-surgical cardiac revascularization, organ
     transplantation, perfusion, ischemia, reperfusion, ischemia-reperfusion
     injury, oxidant injury, cytokine induced injury, shock induced injury,
     resuscitations injury or apoptosis.
     53296-10-9, CV1808
     RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
         (use of a serine protease inhibitor and adenosine agonist for
         preventing organ ischemia and reperfusion injury in relation to
         alteration of G protein-coupled receptors and cAMP)
     53296-10-9 CAPLUS
RN
     Adenosine, 2-(phenylamino)- (CA INDEX NAME)
CN
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ANSWER 36 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN
L6
AN
     2004:829441 CAPLUS
DN
     141:420038
ΤI
     2-Substituted adenosine derivatives: affinity and efficacy at four
     subtypes of human adenosine receptors
ΑU
     Gao, Zhan-Guo; Mamedova, Liaman K.; Chen, Peiran; Jacobson, Kenneth A.
CS
     Molecular Recognition Section, Laboratory of Bioorganic Chemistry,
     National Institute of Diabetes and Digestive and Kidney Diseases, National
     Institutes of Health, Bethesda, MD, 20892, USA
     Biochem. Pharmacol. (2004), 68(10), 1985-1993
CODEN: BCPCA6; ISSN: 0006-2952
SO
PB
     Elsevier B.V.
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DT Journal
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LA English

The affinity and efficacy at four subtypes (A1, A2A, A2B and A3) of human AB adenosine receptors (ARs) of a wide range of 2-substituted adenosine derivs. were evaluated using radioligand binding assays and a cAMP functional assay in intact CHO cells stably expressing these receptors. Similar to previous studies of the N6-position, several 2-substituents were found to be critical structural determinants for the A3AR activation. The following adenosine 2-ethers were moderately potent partial agonists (Ki, nM): benzyl (117), 3-chlorobenzyl (72), 2-(3-chlorophenyl)ethyl (41), and 2-(2-naphthyl)ethyl (130). The following adenosine 2-ethers were A3AR antagonists: 2,2-diphenylethyl, 2-(2-norbornan)ethyl, R- and S-2-phenylbutyl, and 2-(2-chlorophenyl)ethyl. 2-(S-2-Phenylbutyloxy) adenosine as an A3AR antagonist right-shifted the concentration-response curve for the inhibition by NECA of cAMP accumulation with a KB value of 212 nM, which is similar to its binding affinity (Ki = 175 $\ensuremath{\text{nM}})$. These 2-substituted adenosine derivs, were generally less potent at the AlaR in comparison to the A3AR, but fully efficacious, with binding Ki values over 100 nM. The 2-phenylethyl moiety resulted in higher A3AR affinity (Ki in nM) when linked to the 2-position of adenosine through an ether group (54), than when linked through an amine (310) or thioether (1960). 2-[2-(1-Naphthyl)ethyloxy] adenosine (Ki = 3.8 nM) was found to be the most potent and selective (>50-fold) A2A agonist in this series. Mixed A2A/A3AR agonists have been identified. Interestingly, although most of these compds. were extremely weak at the A2BAR, 2-[2-(2-naphthyl)ethyloxy]adenosine (EC50 = 1.4 μ M) and 2-[2-(2-thienyl)-ethyloxy]adenosine (EC50 = 1.8 μ M) were found to be relatively potent A2B agonists, although less potent than NECA (EC50 = 14050257-95-9, 78-6 131865-81-1 nM). 50257-82-4 50257-85-7 2-(Hexyloxy)adenosine 131865-78-6 131933-15-8 131865-82-2 131933-17-0 131933-20-5 131933-26-1 131973-26-7 137817-83-5 137817-84-6 194154-31-9 194154-32-0 794597-49-2, 2-(3-Chlorobenzyloxy)adenosine RL: PAC (Pharmacological activity); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(affinity and efficacy at four subtypes of human adenosine receptors of

Absolute stereochemistry.

50257-82-4 CAPLUS

RN

RN 50257-85-7 CAPLUS

CN Adenosine, 2-(pentyloxy)- (CA INDEX NAME)

2-substituted adenosine derivs.)

Adenosine, 2-phenoxy- (CA INDEX NAME)

RN 50257-95-9 CAPLUS CN Adenosine, 2-(hexyloxy)- (CA INDEX NAME)

Absolute stereochemistry.

RN 131865-78-6 CAPLUS

CN Adenosine, 2-(phenylmethoxy)- (CA INDEX NAME)

Absolute stereochemistry.

RN 131865-81-1 CAPLUS

CN Adenosine, 2-(4-phenylbutoxy)- (CA INDEX NAME)

Absolute stereochemistry.

RN 131865-82-2 CAPLUS

CN Adenosine, 2-[(5-phenylpentyl)oxy]- (CA INDEX NAME)

Absolute stereochemistry.

RN 131933-15-8 CAPLUS

CN Adenosine, 2-(3-methylbutoxy)- (CA INDEX NAME)

131933-17-0 CAPLUS RN

Adenosine, 2-(cyclohexylmethoxy)- (9CI) (CA INDEX NAME) CN

Absolute stereochemistry.

131933-20-5 CAPLUS

Adenosine, 2-(4-cyclohexylbutoxy)- (9CI) (CA INDEX NAME) CN

Absolute stereochemistry.

RN

131933-26-1 CAPLUS Adenosine, 2-(2-ethylbutoxy)- (9CI) (CA INDEX NAME) ${\tt CN}$

Absolute stereochemistry.

131973-26-7 CAPLUS RN

Adenosine, 2-[(4-methylpentyl)oxy]- (9CI) (CA INDEX NAME)

RN 137817-83-5 CAPLUS

CN Adenosine, 2-[(2R)-2-phenylbutoxy]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 137817-84-6 CAPLUS

CN Adenosine, 2-[(2S)-2-phenylbutoxy]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 194154-31-9 CAPLUS

CN Adenosine, 2-[[(3S)-3,7-dimethyl-6-octenyl]oxy]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 194154-32-0 CAPLUS

CN Adenosine, 2-[[(3R)-3,7-dimethyl-6-octenyl]oxy]- (9CI) (CA INDEX NAME)

794597-49-2 CAPLUS RN

Adenosine, 2-[(3-chlorophenyl)methoxy]- (9CI) (CA INDEX NAME) CN

Absolute stereochemistry.

THERE ARE 34 CAPLUS RECORDS THAT CITE THIS RECORD (34 CITINGS) THERE ARE 37 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT RE.CNT 37

ANSWER 37 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN L6

AN 2004:756969 CAPLUS

DN 141:254620

Identification of therapeutic compounds ${\mathbb T}\,{\mathbb I}$

IN Richardson, Peter

Cambridge Biotechnology Ltd., UK PCT Int. Appl., 44 pp. PA

SO CODEN: PIXXD2

DT Patent

English LA

| FAN. | CNT 2
PATENT NO. | KINI | D DATE | APPLICATION NO. | DATE |
|------|--|---|---|--|--|
| PI | | A2 | 20040916 | | |
| | W: AE,
CN,
GE, | AG, AL, AM,
CO, CR, CU,
GH, GM, HR, | AT, AU, AZ,
CZ, DE, DK,
HU, ID, IL, | BA, BB, BG, BR, BW, F
DM, DZ, EC, EE, EG, F
IN, IS, JP, KE, KG, F
MD, MG, MK, MN, MW, M | ES, FI, GB, GD,
KP, KR, KZ, LC, |
| | BG,
MC, | CH, CY, CZ, IL, PL, PT, | DE, DK, EE, | SD, SL, SZ, TZ, UG, Z
ES, FI, FR, GB, GR, F
SK, TR, BF, BJ, CF, G
TD, TG | HU, IE, IT, LU, |
| | AU 200421773
AU 200421773
CA 2514338 | A1
B2
A1
A2 | 20040916
20090604
20040916
20051214 | AU 2004-217731 | 20040305 |
| | R: AT,
IE,
JP 200651960
US 200700597
AT 393917
PT 1604211
ES 2305741
AU 200521899
CA 2557285
WO 200508465
WO 200508465 | EE, CH, DE,
EI, LT, LV,
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A3 | DK, ES, FR, FI, RO, MK, 20060831 20070315 20080515 20080704 20081101 20050915 20050915 20060518 | AU 2005-218997
CA 2005-2557285
WO 2005-GB800 | EE, HU, PL, SK
20040305
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20050304 |
| | W: AE, | G, AL, AM, | AT, AU, AZ, | BA, BB, BG, BR, BW, B | BY, BZ, CA, CH, |

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              GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
              LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,
              NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM,
              SY, TJ, TM,
                          TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM,
         RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,
              AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT,
              RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML,
              MR, NE, SN, TD,
                               ΤG
     EP 1749016
                                  20070207
                                               EP 2005-717878
                           A2
         R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR
                                  20070411
     CN 1946732
                                               CN 2005-80007119
                                                                        20050304
                           Α
     BR 2005008488
                           Α
                                  20070731
                                               BR 2005-8488
                                                                        20050304
                                               JP 2007-501345
     JP 2007526291
                                  20070913
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                            Τ
     SG 144146
                           Α1
                                  20080729
                                               SG 2008-4350
                                                                        20050304
     NZ 549235
                                  20100129
                                               NZ 2005-549235
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                           Α
     MX 2006010075
                                  20070410
                                               MX 2006-10075
                                                                        20060904
                           Α
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     NO 2006004365
                                  20061122
                                               NO 2006-4365
                           Α
     KR 2007004792
                            Α
                                  20070109
                                               KR 2006-7020304
                                                                        20060929
     US 20080221060
                           A1
                                  20080911
                                               US 2007-598520
                                                                        20071207
PRAI GB 2003-5153
                                  20030307
                           Α
     GB 2004-5009
                                  20040305
                           Α
     GB 2004-5012
                                  20040305
     WO 2004-GB902
                           W
                                  20040305
     GB 2004-12261
                                  20040602
                           Α
     GB 2004-12262
                                  20040602
                           Α
     GB 2004-13627
                           Α
                                  20040618
     GB 2004-19718
                                  20040906
                           Α
     GB 2004-20063
                                  20040909
                           Α
     GB 2004-20615
                                  20040916
                           Α
     WO 2005-GB800
                           W
                                  20050304
ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT
    Methods for identifying potential therapeutic agents involve determining the
     affinity and/or efficacy of a test compound for an adenosine receptor at a
     relatively high pH and at a relatively low pH. Compds. with greater
     affinity and/or efficacy at the low pH are identified as potential
     therapeutic agents, in particular for the treatment of pain or
     inflammation.
                   50257-84-6
     50257-82-4
                                50257-89-1
                   53296-10-9, 2-Phenylaminoadenosine
     50257-95-9
                               756818-70-9
     53296-19-8
                   71231-79-3
                    756818-72-1
                                   756818-73-2
     756818-71-0
     756818-76-5
                    756818-78-7
     RL: ADV (Adverse effect, including toxicity); PAC (Pharmacological
     activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (identification of therapeutic compds.)
     50257-82-4 CAPLUS
RN
     Adenosine, 2-phenoxy- (CA INDEX NAME)
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Absolute stereochemistry.

RN 50257-84-6 CAPLUS CN Adenosine, 2-butoxy- (9CI) (CA INDEX NAME)

RN 50257-89-1 CAPLUS

CN Adenosine, 2-(2-hydroxyethoxy)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 50257-95-9 CAPLUS

CN Adenosine, 2-(hexyloxy)- (CA INDEX NAME)

Absolute stereochemistry.

RN 53296-10-9 CAPLUS

CN Adenosine, 2-(phenylamino)- (CA INDEX NAME)

Absolute stereochemistry.

RN 53296-19-8 CAPLUS

CN Adenosine, 2-[(4-methoxyphenyl)amino]- (9CI) (CA INDEX NAME)

RN 71231-79-3 CAPLUS

CN Adenosine, 2-[(4-fluorophenyl)amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 756818-70-9 CAPLUS

CN Adenosine, 2-(4-cyanophenoxy)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 756818-71-0 CAPLUS

CN Adenosine, 2-([1,1'-biphenyl]-3-yloxy)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 756818-72-1 CAPLUS

CN Adenosine, 2-[(2,3-dihydro-1H-inden-5-yl)oxy]- (9CI) (CA INDEX NAME)

756818-73-2 CAPLUS

CN Adenosine, 2-[3-(1-methylethyl)phenoxy]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

756818-76-5 CAPLUS RN

Adenosine, 2-(cyclopentylmethoxy)- (9CI) (CA INDEX NAME) CN

Absolute stereochemistry.

756818-78-7 CAPLUS RN

CNAdenosine, 2-heptyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS) OSC.G

RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 38 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN

AN 2004:754440 CAPLUS

DN

141:271600 Use of adenosine receptor agonists in therapy ΤI

Richardson, Peter

Cambridge Biotechnology Ltd., UK PAPCT Int. Appl., 25 pp.

CODEN: PIXXD2

DT Patent ${\rm LA}$ English FAN.CNT

| Ł'AN. | PATENT NO. | | | | | | | | APPLICATION NO. | | | | | | | | | |
|---------------|-------------------|-------|------|-----|-----|-----|------------|----------|-----------------|----------------------------------|-------------|-------|------|-----|-----|-----|-------|-----|
| ΡI | WO 20 | | | | | | | | | | | | | | | | 0040. | |
| | | | | | | | | | | | | , BG, | | | | | CA, | CH, |
| | | С | Ν, (| co, | CR, | CU, | CZ, | DE, | DK, | DM, | DZ | , EC, | EE, | EG, | ES, | FI, | GB, | GD, |
| | | G | Ε, 0 | GΗ, | GM, | HR, | HU, | ID, | IL, | IN, | IS | , JP, | KE, | KG, | KP, | KR, | KZ, | LC, |
| | | L | к, І | LR, | LS, | LT, | LU, | LV, | MA, | MD, | MG | , MK, | MN, | MW, | MX, | MZ, | NA, | NΙ |
| | I | RW: B | W, C | SH, | GM, | KE, | LS, | MW, | MZ, | SD, | SL | , SZ, | TZ, | UG, | ZM, | ZW, | AT, | BE, |
| | | В | G, C | CH, | CY, | CZ, | DE, | DK, | EE, | ES, | FI, | , FR, | GB, | GR, | HU, | IE, | ΙT, | LU, |
| | | M | C, 1 | ΝL, | PL, | PT, | RO, | SE, | SI, | SK, | TR | , BF, | ΒJ, | CF, | CG, | CI, | CM, | GA, |
| | GN, GQ, GW, | | | | | | | | | | | | | | | | | |
| | AU 2004216891 | | | | | | | | | | AU : | 2004- | 2168 | 91 | | 2 | 0040. | 305 |
| | AU 20 | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | 2004- | | | | | | |
| | | | | | | | | 20051214 | | | | | | | | | | |
| | I | | | | | , | , | | | | | , IT, | , | | | | | |
| | | | | | | | | | | | | , TR, | | | | | | |
| | | | | | | | | | | | | 2004- | | | | | | |
| | JP 20 | 00651 | 9824 | 1 | | Τ | | 2006 | 0831 | JP 2006-505924
NZ 2004-541587 | | | | | | 2 | 0040. | 305 |
| | | | | | | | | | | | | | | | | | | |
| | NO 20 | | | | | | | | | 7 NO 2005-4475 | | | | | | | | |
| | IN 2005CN02547 | | | | | | | | | | 2005-CN2547 | | | | | | | |
| | US 20 | | | | | A1 | | | | | US : | 2006- | 5474 | 54 | | 2 | 0060 | 628 |
| | | | | | В2 | | | 2010 | | | | | | | | | | |
| PRAI | AI GB 2003-5150 A | | | | | | | | | | | | | | | | | |
| WO 2004-GB952 | | | | | | W | W 20040305 | | | | | | | | | | | |

20040305 ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

MARPAT 141:271600

GΙ

The invention describes the use of compds. I (R = C1-4 alkoxy; X = H, OH)for the prevention, treatment, or amelioration of cancer, inflammation, autoimmune disease, ischemia-reperfusion injury, epilepsy, sepsis, septic shock, neurodegeneration (including Alzheimer's Disease), muscle fatigue or muscle cramp. The compds. are effective at very low doses, and so can be administered at doses at which serious side effects are not observed 50257-84-6

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(adenosine receptor agonists for therapy)

RN

50257-84-6 CAPLUS Adenosine, 2-butoxy- (9CI) (CA INDEX NAME)

THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD (3 CITINGS) OSC.G RE.CNT THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

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L6
    ANSWER 39 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN
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2004:570030 CAPLUS AN

DN 141:99661

Identification of compounds suitable as agonists and/or antagonists of TT adenosine A2A receptor coupled to specific G proteins, and use of identified compounds in treatment of various disorders in mammals

Fredholm, Bertil B.; Kull, Bjoern Actar Ab, Swed. IN

PA

SO PCT Int. Appl., 22 pp.

CODEN: PIXXD2

DT Patent

English LΑ

FAN.CNT 1

| T ZIN . | PATENT NO. | | | | | KIND DATE | | | APPLICATION NO. | | | | | | DATE | | | |
|---------|-------------------------------------|--|-----|-----|-----|-----------|------|------|-----------------|------------------------|-----|------|-----|-----|------|-------|-----|-----|
| ΡI | | | | | A1 | | 2004 | | | WO 2 | | | | | | 00312 | | |
| | | W: AE, AG, AL,
CO, CR, CU,
GH, GM, HR, | | AM, | ΑT, | ΑU, | ΑZ, | BA, | BB, | BG, | BR, | BY, | ΒZ, | CA, | CH, | CN, | | |
| | | | | CZ, | DE, | DK, | DM, | DZ, | EC, | EE, | EG, | ES, | FI, | GB, | GD, | GE, | | |
| | | | | HU, | ID, | IL, | IN, | IS, | JP, | KE, | KG, | KP, | KR, | ΚZ, | LC, | LK, | | |
| | | LR, LS, LT, | | LU, | LV, | MA, | MD, | MG, | MK, | MN, | MW, | MX, | MZ, | NI, | NO, | NZ, | | |
| | | OM, PG, PH, | | PL, | PT, | RO, | RU, | SC, | SD, | SE, | SG, | SK, | SL, | SY, | ТJ, | TM, | | |
| | | | TN, | TR, | TT, | TZ, | UA, | UG, | US, | UZ, | VC, | VN, | YU, | ZA, | ZM, | ZW | | |
| | | RW: | GH, | GM, | KE, | LS, | MW, | MZ, | SD, | SL, | SZ, | TΖ, | UG, | ZM, | ZW, | AM, | ΑZ, | BY, |
| | | | KG, | ΚZ, | MD, | RU, | ΤJ, | TM, | ΑT, | BE, | BG, | CH, | CY, | CZ, | DE, | DK, | EE, | ES, |
| | | | FΙ, | FR, | GB, | GR, | HU, | IE, | ΙT, | LU, | MC, | NL, | PT, | RO, | SE, | SI, | SK, | TR, |
| | BF, BJ, CF, | | CG, | CI, | CM, | GΑ, | GN, | GQ, | GW, | ML_{\prime} | MR, | NE, | SN, | TD, | TG | | | |
| | AU 2003291608
AI US 2002-436480P | | | | A1 | | 2004 | 0722 | | AU 2 | 003 | 2916 | 08 | | 2 | 00312 | 229 | |
| PRAI | | | | | P | | 2002 | 1227 | | | | | | | | | | |
| | WO 2003-SE2086 | | | | | W | | 2003 | 1229 | | | | | | | | | |

The invention discloses a method of drug screening to select chemical compds. suitable as receptor agonists or antagonists that act on a receptor belonging to the family of G protein coupled receptors. The method involves constructing a biol. preparation comprising a receptor coupled to a specific G protein, bringing a compound in contact with said preparation, and studying the functional properties of said compound in biol. preparation The invention also discloses the use of identified compound as a drug for treatment of CNS disorders, cardiovascular disorders, inflammatory disorders, metabolic disorders, cancer and other hyperproliferative disorders in a mammal. Specifically, the invention discloses a novel approach to identify and test compds. based on changes in adenosine A2A receptor binding dependent on the nature of the coupled G protein. The invention related that this approach seemed feasible due to the evidence that G proteins, such as Gs, Gi or Golf, influence the binding properties of A2A receptors. The invention also related that a truly efficient drug mol., in addition to affinity towards A2A, can be specific towards the different G proteins associated with A2A. In the examples, the invention used transformed CHO cells expressing A2A receptors linked to Gs or Golf G proteins, and demonstrated the existence of G-protein-dependent ligand specificity. Specifically, the examples demonstrated that substance KF 17837 has higher affinity to the A2A-Golf complex in striatum than to A2A-Gs complex in leukocytes. The examples also showed how some compds. influence A2A receptors coupled to Golf more readily than A2A receptors coupled to Gs.

53296-10-9

RL: BSU (Biological study, unclassified); BIOL (Biological study) (binding of chemical compds. to adenosine A2A receptors in membrane preparation derived from pig brain (A2A receptors coupled to Golf) or from pig

lymphocytes (A2A receptors coupled to Gs))

53296-10-9 CAPLUS Adenosine, 2-(phenylamino)- (CA INDEX NAME) CN

Absolute stereochemistry.

OSC.G THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS) RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 40 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN Ι6

2004:567572 CAPLUS ΑN

DN 142:89098

WGA-Coated Yttrium Oxide Beads Enable an Imaging-Based Adenosine 2a Receptor Binding Scintillation Proximity Assay Suitable for High Throughput Screening

ΑU Bryant, Robert; Mcguinness, Debra; Turek-Etienne, Tammy; Guyer, Deborah; Yu, Liming; Howells, Leighton; Caravano, Joseph; Zhai, Ying; Lachowicz, Jean

Schering-Plough Research Institute, Kenilworth, NJ, USA CS

SO Assay and Drug Development Technologies (2004), 2(3), 290-299 CODEN: ADDTAR; ISSN: 1540-658X

Mary Ann Liebert, Inc.

DT Journal

LA English

Adenosine receptors belong to the superfamily of G protein-coupled receptors and are involved in a variety of physiol. functions.

Traditionally, binding assays to detect adenosine 2a (A2a) antagonists and agonists have used filtration methods that are cumbersome to run and not amenable to HTS. We developed scintillation proximity assays (SPA) utilizing HEK293 RBHA2AM cell membranes, either wheat germ agglutinin (WGA)-coated yttrium silicate (YSi) or red-shifted yttrium oxide (YO) beads and the A2a-selective radioligand [3H]SCH 58261. Both beads gave windows (total binding/nonspecific binding) of >5 and Kd values of 2-3 nM for the radioligand, in agreement with results obtained by filtration. In contrast, WGA-polyvinyltoluene as well as other bead types had windows of <3 and significant radioligand binding to the uncoated beads. A 384-well WGA-YO bead SPA was optimized utilizing a LEADseeker imaging system and an automated trituration process for dispensing the dense yttrium-based beads. Signals were stable after 4 h, and Z' values were 0.7-0.8. The LEADseeker imaging assay tolerated 2% DMSO and generated IC50 values of 3-5 nM for the A2a antagonist CGS 15943, comparable to that obtained by the filtration method. A number of adenosine and xanthine analogs were identified as hits in the Library of Pharmacol. Active Compds. (LOPAC). This imaging-based A2a SPA enables HTS and is a major improvement over the filtration method.

53296-10-9, 2-Phenylaminoadenosine

RL: ANT (Analyte); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study)

(wheat germ agglutinin-coated yttrium oxide beads enable imaging-based adenosine 2a receptor binding scintillation proximity assay suitable for high throughput screening)

RN 53296-10-9 CAPLUS

Adenosine, 2-(phenylamino) - (CA INDEX NAME)

OSC.G 7 THERE ARE 7 CAPLUS RECORDS THAT CITE THIS RECORD (7 CITINGS)
RE.CNT 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 41 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN

AN 2004:432750 CAPLUS

DN 141:11973

TI Use of adenosine or its analogue in cosmetics for smoothing wrinkles

IN Galey, Jean Baptiste

PA L'Oreal, Fr.

SO Fr. Demande, 17 pp. CODEN: FRXXBL

DT Patent

LA French

FAN.CNT 1

| | PATENT | NO. | | KIND | | DATE | | APPLICATION NO. | | | | | | DATE | | | | |
|------|-----------------|----------------|-----|------|------------|-------------|-------|-----------------|----------------|------|-------|-----------|----------|----------|-----|------|-----|--|
| ΡI | FR 284 | R 2847469 | | | A1 | | 2004 | 0528 | | FR | 2002 |
-1482 | 28 | | 2 | 0021 | 126 | |
| | FR 284 | 7469 | | | В1 | | 2006 | 0407 | | | | | | | | | | |
| | EP 142 | P 1424064 | | | | | 2004 | | EP | 2003 | -2926 | | 20031022 | | | | | |
| | EP 142 | 1424064 | | | | | 2007 | | | | | | | | | | | |
| | R: | R: AT, BE, CH, | | | DE, | DK | , ES, | FR, | GB, | GE | R, IT | , LI | LU, | NL, | SE, | MC, | PT, | |
| | | IE, | SI, | LT, | LV, | FΙ | , RO, | MK, | CY, | ΑI | , TR | , BG | CZ, | EE, | HU, | SK | | |
| | AT 363 | 388 | | | Τ | | 2007 | 0615 | | AΤ | 2003 | -2926 | 33 | | 2 | 0031 | 022 | |
| | ES 228 | 7432 | | | Т3 | | 2007 | | ES 2003-292633 | | | | | 20031022 | | | | |
| | US 200 | 40146 | 474 | | A1 | A1 20040729 | | | | US | 2003 | -701 | 195 | | 2 | 0031 | 106 | |
| PRAI | FR 200: | 2-148 | 28 | | A 20021126 | | | | | | | | | | | | | |
| | US 2002-432634P | | | | P | | 2002 | 1212 | | | | | | | | | | |

AB A cosmetic method to reduce the wrinkles of the face and/or relax the skin, comprises topical application of a composition containing, adenosine or its analogs on the skin. A cosmetic composition contained adenosine 0.10, stearic acid 3.00, a mixture of glyceryl mono-stearate and polyethylene glycol stearate 2.50, polyethylene glycol stearate 1.00, cyclopentadimethylsiloxane 10.00, excipients 3.00, vegetable oils 7.00, synthetic oil 6.00, preservative 1.20, polyoxyethylene methoxy dimethylsiloxane (16 EO) 1.00, silicone gum 0.20, acrylic copolymer in inverse emulsion (Simulgel 600) 1.700, stearyl alc. 1.00, and water q.s.

IT 53296-10-9, 2-Phenylaminoadenosine

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)

(use of adenosine or its analog in cosmetics for smoothing wrinkles)

RN 53296-10-9 CAPLUS

CN Adenosine, 2-(phenylamino)- (CA INDEX NAME)

Absolute stereochemistry.

OSC.G 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)
RE.CNT 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

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L6 ANSWER 42 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN
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AN 2004:406955 CAPLUS

DN 141:64408

- TI A TOPS-MODE approach to predict affinity for A1 adenosine receptors. 2-(Arylamino)adenosine analogues
- AU Perez Gonzalez, Maykel; Teran Moldes, Maria del Carmen
- CS Experimental Sugar Cane Station "Villa Clara-Cienfuegos", Services Unit,
 Drug Design Department, Ranchuelo, 53100, Cuba
- Drug Design Department, Ranchuelo, 53100, Cuba SO Bioorganic & Medicinal Chemistry (2004), 12(11), 2985-2993 CODEN: BMECEP; ISSN: 0968-0896
- PB Elsevier Ltd.
- DT Journal
- LA English
- The TOPol. Sub-Structural Mol. Design (TOPS-MODE) approach has been applied to the study of the affinity of A1 adenosine receptor of different 2-(arylamino) adenosine analogs. A model able to describe closed to 79% of the variance in the values for binding expts. of 32 analogs of these compds. through multilinear regression anal. (MRA) was developed with the use of the mentioned approach. In contrast, no one of seven different approaches, including the use of Constitutional, Topol., Mol. walk counts, BCUT, Randic Mol. profiles, Geometrical, and RDF descriptors was able to explain more than 70% of the variance in the mentioned property with the same number of descriptors. In addition, the TOPS-MODE approach permitted to find the contribution of different fragments to the biol. property giving to the model a straightforward structural interpretability.
- IT 53296-10-9
 - RL: PAC (Pharmacological activity); PRP (Properties); BIOL (Biological study)
 - (TOPS-MODE approach to predict affinity for A1 adenosine receptors, studied using 2-(arylamino) adenosine analogs)
- RN 53296-10-9 CAPLUS
- CN Adenosine, 2-(phenylamino) (CA INDEX NAME)

RE.CNT 40 THERE ARE 40 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

- L6 ANSWER 43 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN
- AN 2003:796432 CAPLUS
- DN 139:302061
- TI Synergy of dopamine D2 and adenosine A2 receptors activates protein kinase A (PKA) signaling via β/γ dimers, and use in the treatment of drug abuse and drug withdrawal
- IN Gordon, Adrienne S.; Diamond, Ivan F.; Yao, Lina
- PA The Regents of the University of California, USA
- SO PCT Int. Appl., 152 pp.
- CODEN: PIXXD2
- DT Patent LA English
- FAN.CNT 1

| r Am. | r An . CNI I | | | | | | | | | | | | | | | | | | | |
|-------|---------------|---------------|-----|-----|-----|-----|------|------|------|-----------------|------|------|-------|-----|-----|----------|------|-----|--|--|
| | PA: | ΓΕΝΤ | NO. | | | KIN | D | DATE | | APPLICATION NO. | | | | | | | DATE | | | |
| | | | | | | | _ | | | | | | | | | _ | | | | |
| ΡI | WO 2003082211 | | | | | A2 | | 2003 | 1009 | | WO 2 | 003- | US96: | 29 | | 20030327 | | | | |
| | MO | WO 2003082211 | | | А3 | | 2004 | 1216 | | | | | | | | | | | | |
| | | W: | ΑE, | ΑG, | AL, | AM, | ΑT, | ΑU, | ΑZ, | ΒA, | BB, | BG, | BR, | BY, | ΒZ, | CA, | CH, | CN, | | |
| | | | CO, | CR, | CU, | CZ, | DE, | DK, | DM, | DZ, | EC, | EE, | ES, | FΙ, | GB, | GD, | GE, | GH, | | |
| | | | GM, | HR, | HU, | ID, | IL, | IN, | IS, | JP, | KE, | KG, | KP, | KR, | ΚZ, | LC, | LK, | LR, | | |
| | | | LS, | LT, | LU, | LV, | MA, | MD, | MG, | MK, | MN, | MW, | MX, | MZ, | NI, | NO, | NΖ, | OM, | | |
| | PH, PL, PT, | | | PT, | RO, | RU, | SC, | SD, | SE, | SG, | SK, | SL, | TJ, | TM, | TN, | TR, | TT, | | | |

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TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
             KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES,
             FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR,
                 BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN,
                                                                       TD, TG
     AU 2003241281
                                 20031013
                                            AU 2003-241281
                                                                      20030327
                          A 1
     US 20090137662
                                 20090528
                                             US 2007-550331
                                                                      20070222
                          Α1
PRAI US 2002-368417P
                          P
                                 20020327
     WO 2003-US9629
                          W
                                 20030327
ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT
     The invention pertains to the discovery that a dopamine receptor agonist
     can activate PKA signaling and/or can act synergistically with an \,
     adenosine receptor to activate such signaling. In various embodiments,
     the invention exploits the synergy between the dopamine receptor pathway
     and an adenosine receptor pathway to provide methods of mitigating one or
     more symptoms produced by the chronic consumption of a substance of abuse
     or to mitigate one or more physiol. and/or behavioral symptoms associated
     with cessation of chronic consumption of a substance of abuse. In certain
     embodiments, the methods involve administering to a mammal an effective
     amount of an adenosine receptor antagonist and an effective amount of a
     dopamine receptor antagonist, where the effective amount of the adenosine
     receptor antagonist is lower than the effective amount of an adenosine
     receptor antagonist administered without the dopamine receptor antagonist.
     53296-10-9, 2-Phenylaminoadenosine
ΤТ
     RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL
     (Biological study); USES (Uses)
        (synergy of dopamine D2 and adenosine A2 receptors activates protein
        kinase A signaling via \beta/\gamma dimers, and use in treatment of
```

drug abuse and drug withdrawal)

A1

53296-10-9 CAPLUS

CN Adenosine, 2-(phenylamino)- (CA INDEX NAME)

Absolute stereochemistry.

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ANSWER 44 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN
L6
AN
     2003:335118 CAPLUS
DN
     138:338409
     Synthesis of 2-aralkoxyadenosines and 2-alkoxyadenosines via hydrolysis,
TΤ
     alkylation, and amination reactions
ΤN
     Moorman, Allan R.
     King Pharmaceuticals Research and Development, Inc., USA
PA
     PCT Int. Appl., 38 pp.
SO
     CODEN: PIXXD2
DT
     Patent
LΑ
     English
FAN.CNT 2
     PATENT NO.
                          KIND
                                  DATE
                                               APPLICATION NO.
                                                                       DATE
     WO 2003035662
                                  20030501
                                               WO 2002-US34313
                                                                       20021024
                           A1
         W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
              CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
              GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
             LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
             PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ,
             UA, UG, UZ, VN, YU, ZA, ZM, ZW
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
              KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES,
             FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
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20030501

CA 2002-2465264

20021024

CA 2465264

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CA 2465264
                                   20100907
     AU 2002336668
                                   20030506
                                                AU 2002-336668
                                                                         20021024
                            A1
     AU 2002336668
                            В2
                                   20080110
     US 20030199686
                            A 1
                                   20031023
                                                US 2002-281291
                                                                         20021024
     US 6951932
                            В2
                                   20051004
     EP 1446413
                                   20040818
                                                EP 2002-773916
                                                                         20021024
                            A 1
         R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK
     BR 2002013557
                                                BR 2002-13557
                            Α
                                   20041026
                                                                         20021024
     CN 1608076
                                   20050420
                                                CN 2002-826143
                                                                         20021024
                            Α
     JP 2005511551
                                   20050428
                                                JP 2003-538175
                                                                         20021024
                            Τ
     NZ 532541
                                   20050930
                                                NZ 2002-532541
                                                                         20021024
                            Α
     CN 1935152
                            Α
                                   20070328
                                                CN 2006-10099934
                                                                         20021024
     IL 161608
                                   20100531
                                                IL 2002-161608
                                                                         20021024
                            Α
     NO 2004002126
                            Α
                                   20040623
                                                NO 2004-2126
                                                                         20040524
     NO 326625
                                   20090119
                            В1
     US 20060135466
                            Α1
                                   20060622
                                                US 2005-155212
                                                                         20050616
     US 7342003
                            В2
                                   20080311
PRAI US 2001-335169P
                            P
                                   20011025
     US 2002-375723P
                                   20020426
                            P
     CN 2002-826143
                            А3
                                   20021024
     US 2002-281291
                            A2
                                   20021024
     WO 2002-US34313
                            W
                                   20021024
     US 2003-508804P
                            Р
                                   20031003
     US 2004-958470
                            Α1
                                   20041004
ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT
     CASREACT 138:338409; MARPAT 138:338409
OS
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Ι

AΒ 2-Aralkyloxyadenosines and 2-alkoxyadenosines I, wherein R1 and R2 are independently hydrogen, alkyl, substituted alkyl, alkenyl, substituted alkenyl, alkynyl, substituted alkynyl, cycloalkyl, substituted cycloalkyl, cycloalkenyl, substituted cycloalkenyl, aralkyl, substituted aralkyl, aryl, substituted aryl, heteroaryl, heterocyclic, or if taken together with the nitrogen atom, forms an azetidine ring or a 5-6 membered heterocyclic ring containing a total of one to four heteroatoms selected from nitrogen, oxygen, and sulfur; R3 is alkyl, substituted alkyl, alkenyl, substituted alkenyl, alkynyl, substituted alkynyl, aralkyl, substituted aralkyl, aralkenyl, or substituted aralkenyl, were prepared via hydrolysis, alkylation, and amination reactions. Preferred methods of the invention include activating a quanosine compound followed by hydrolysis; alkylating the hydrolyzed compound with subsequent amination to provide a 2-aralkyloxyadenosine or a 2-alkoxyadenosine compound The invention is particularly useful for synthesis of 2-[2-(4-chlorophenyl)ethoxy]adenosine.

131865-78-6P ΙT 50257-84-6P 515138-96-2P 515138-97-3P

RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)

(synthesis of aralkoxyadenosines and alkoxyadenosines via hydrolysis, alkylation, and amination reactions)

RN 50257-84-6 CAPLUS

Adenosine, 2-butoxy- (9CI) (CA INDEX NAME)

10/598,520

RN

131865-78-6 CAPLUS Adenosine, 2-(phenylmethoxy)- (CA INDEX NAME) CN

Absolute stereochemistry.

515138-96-2 CAPLUS

Adenosine, 2-[(4-nitrophenyl)methoxy]- (9CI) (CA INDEX NAME) CN

Absolute stereochemistry.

RN

515138-97-3 CAPLUS Acetic acid, [(6-amino-9- β -D-ribofuranosyl-9H-purin-2-yl)oxy]- (9CI) CN (CA INDEX NAME)

Absolute stereochemistry.

THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (2 CITINGS) OSC.G 2

RE.CNT THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 45 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN L6

AN 2003:251382 CAPLUS

DN 139:223688

Allosteric interactions and QSAR: on the role of ligand hydrophobicity ΤI

Hansch, Corwin; Garg, Rajni; Kurup, Alka; Mekapati, Suresh Babu

10/598,520

Department of Chemistry, Pomona College, Claremont, CA, 91711, USA Bioorganic & Medicinal Chemistry (2003), 11(9), 2075-2084 CS

CODEN: BMECEP; ISSN: 0968-0896

Elsevier Science Ltd. PB

DT Journal

English LA

A study of a very large database of QSAR (9100) has uncovered a few AΒ unusual examples where as one increases the hydrophobicity of the members of a set of congeners, activity decreases until at a certain point, activity begins to increase. Obviously a change in mechanism is involved. The only way we have found to rationalize this unusual event is by a change in the structure of the receptor. We have found this to occur with Hb, a substance first used to define allosteric reactions.

50257-84-6 50257-85-7 50257-89-1 131933-17-0 131933 50257-95-9 131933-15-8 131933-20-5 131933-26-1 131933-27-2 131973-26-7

RL: PAC (Pharmacological activity); PRP (Properties); BIOL (Biological study)

(Al-adenoreceptor activity prolongation; parabolic relationship between ligand hydrophobicity and activity in QSAR studies in relation to allosteric interactions)

RN

50257-84-6 CAPLUS Adenosine, 2-butoxy- (9CI) (CA INDEX NAME) CN

Absolute stereochemistry.

RN 50257-85-7 CAPLUS

CNAdenosine, 2-(pentyloxy)- (CA INDEX NAME)

Absolute stereochemistry.

50257-89-1 CAPLUS

Adenosine, 2-(2-hydroxyethoxy)- (9CI) (CA INDEX NAME)

RN 50257-95-9 CAPLUS

CN Adenosine, 2-(hexyloxy)- (CA INDEX NAME)

Absolute stereochemistry.

Me
$$^{(CH_2)}_{5}$$
 $^{NH_2}_{N}$ $^{N}_{N}$ $^{R}_{R}$ $^{R}_{S}$ $^{OH}_{OH}$

RN 131933-15-8 CAPLUS

CN Adenosine, 2-(3-methylbutoxy)- (CA INDEX NAME)

Absolute stereochemistry.

RN 131933-17-0 CAPLUS

CN Adenosine, 2-(cyclohexylmethoxy)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 131933-20-5 CAPLUS

CN Adenosine, 2-(4-cyclohexylbutoxy)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 131933-26-1 CAPLUS

CN Adenosine, 2-(2-ethylbutoxy)- (9CI) (CA INDEX NAME)

RN 131933-27-2 CAPLUS

CN Adenosine, 2-[(3-ethylpentyl)oxy]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 131973-26-7 CAPLUS

CN Adenosine, 2-[(4-methylpentyl)oxy]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

OSC.G 13 THERE ARE 13 CAPLUS RECORDS THAT CITE THIS RECORD (13 CITINGS) RE.CNT 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 46 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN

- AN 2002:906668 CAPLUS
- DN 137:380042
- TI Methods and formulations for increasing the affinity of Al adenosine receptor ligands for the Al adenosine receptor using glycolipids
- IN Wilson, Constance Neely
- PA Endacea Inc., USA
- SO PCT Int. Appl., 36 pp.

CODEN: PIXXD2

- DT Patent
- LA English

FAN.CNT 1

| L'AN | CNT | Τ | | | | | | | | | | | | | | | | | |
|------|----------------|--------|-----|-----|-----|---------|-----|------|------|-----------------|-------|-------|-------|-----|-----|----------|------|-----|--|
| | PA: | CENT I | NO. | | | KIND DA | | | DATE | | | ICAT: | ION : | NO. | | DATE | | | |
| | | | | | | | _ | | | | | | | | | | | | |
| PI | WO 2002095391 | | | | | A1 | | 2002 | 1128 | 1 | WO 20 | 002- | US16: | 218 | | 21 | 0020 | 523 | |
| | | W: | ΑU, | CA, | JP, | US | | | | | | | | | | | | | |
| | RW: AT, BE, CH | | | | CH, | CY, | DE, | DK, | ES, | FI, | FR, | GB, | GR, | IE, | ΙT, | LU, | MC, | NL, | |
| | PT, SE, TR | | | | TR | | | | | | | | | | | | | | |
| | CA | 2441 | 801 | | | A1 | | 2002 | 1128 | CA 2002-2441801 | | | | | | 20020523 | | | |
| | AU 2002311987 | | | | | A1 | | 2002 | 1203 | AU 2002-311987 | | | | | | 20020523 | | | |
| | EP 1390740 | | | | | A1 | | 2004 | 0225 | | EP 20 | 002- | 7393: | 34 | | 21 | 0020 | 523 | |
| | R: AT, BE, CH | | CH, | DE, | DK, | ES, | FR, | GB, | GR, | ΙT, | LΙ, | LU, | NL, | SE, | MC, | PT, | | | |
| | IE, SI, LT | | | | | LV, | FI, | RO, | MK, | CY, | AL, | TR | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |

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JP 2005518331
                                20050623
                                            JP 2002-591814
                                                                    20020523
     US 20040121406
                                20040624
                                            US 2003-475925
                                                                    20031024
                          Α1
PRAI US 2001-293362P
                          P
                                20010524
     WO 2002-US16218
                          W
                                20020523
     Glycolipids are useful for enhancing the affinity of Al adenosine receptor
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AB Glycolipids are useful for enhancing the affinity of A1 adenosine receptor ligands for the A1 adenosine receptor. Glycolipids are accordingly useful in diagnostic and therapeutic methods that require the delivery or administration of A1 adenosine ligands.

IT 53296-10-9, CV 1808

RL: BSU (Biological study, unclassified); DGN (Diagnostic use); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(Al adenosine receptor ligand; methods and formulations for increasing the affinity of Al adenosine receptor ligands for Al adenosine receptor using glycolipids in relation to diagnostic and therapeutic uses)

RN 53296-10-9 CAPLUS

CN Adenosine, 2-(phenylamino)- (CA INDEX NAME)

Absolute stereochemistry.

OSC.G 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)
RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

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L6 ANSWER 47 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN
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AN 2002:623386 CAPLUS

DN 138:51514

TI Adenosine A2A receptor agonists: CoMFA-based selection of the most predictive conformation $% \left(1\right) =\left(1\right) +\left(1$

AU Doytchinova, I.; Valkova, I.; Natcheva, R.

CS Department of Chemistry, Faculty of Pharmacy, Medical University-Sofia, Sofia, 1000, Bulg.

SO SAR and QSAR in Environmental Research (2002), 13(2), 227-235 CODEN: SQERED; ISSN: 1062-936X

PB Taylor & Francis Ltd.

DT Journal

LA English

AB A step-wise comparative mol. field anal. (CoMFA)-based procedure was applied to a series of 51 2-oxyadenosines in order to select the most predictive conformation for binding to A2A adenosine receptor (AR). The highest correlation and predictive power were found for conformers with side chain at 2nd position oriented in the direction opposite to the exocyclic amino group on the adenine ring (torsion N1C2OR = 120°) and fully extended. The interaction of ligand and receptor is under steric and electrostatic control. The steric contribution is of a greater importance for the predictivity than the electrostatic one. Hydrophobicity of the compds. investigated does not affect significantly either the affinity to A2A AR, nor the predictivity of the models.

50257-82-4 50257-84-6 50257-85-7 50257-89-1 50257-95-9 131865-78-6 131865-81-1 131865-82-2 131933-15-8 131933-17-0 131933-20-5 131933-26-1 131933-27-2 131973-26-7 137817-83-5 137817-84-6 145747-87-1 194154-31-9 194154-32-0

RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)

(step-wise comparative mol. field anal. of 2-oxyadenosine derivs. conformation and binding to adenosine A2A adenosine receptor) $\frac{1}{2}$

RN 50257-82-4 CAPLUS

CN Adenosine, 2-phenoxy- (CA INDEX NAME)

Absolute stereochemistry.

RN 50257-84-6 CAPLUS CN Adenosine, 2-butoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 50257-85-7 CAPLUS CN Adenosine, 2-(pentyloxy)- (CA INDEX NAME)

Absolute stereochemistry.

RN 50257-89-1 CAPLUS CN Adenosine, 2-(2-hydroxyethoxy)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 50257-95-9 CAPLUS CN Adenosine, 2-(hexyloxy)- (CA INDEX NAME)

Me
$$(CH_2)_5$$
 NH_2 NH_2

RN

131865-78-6 CAPLUS Adenosine, 2-(phenylmethoxy)- (CA INDEX NAME) CN

Absolute stereochemistry.

131865-81-1 CAPLUS

CN Adenosine, 2-(4-phenylbutoxy)- (CA INDEX NAME)

Absolute stereochemistry.

RN

131865-82-2 CAPLUS Adenosine, 2-[(5-phenylpentyl)oxy]- (CA INDEX NAME) ${\tt CN}$

Absolute stereochemistry.

131933-15-8 CAPLUS RN

Adenosine, 2-(3-methylbutoxy)- (CA INDEX NAME)

131933-17-0 CAPLUS RN

Adenosine, 2-(cyclohexylmethoxy)- (9CI) (CA INDEX NAME) CN

Absolute stereochemistry.

131933-20-5 CAPLUS

Adenosine, 2-(4-cyclohexylbutoxy)- (9CI) (CA INDEX NAME) CN

Absolute stereochemistry.

RN

131933-26-1 CAPLUS Adenosine, 2-(2-ethylbutoxy)- (9CI) (CA INDEX NAME) ${\tt CN}$

Absolute stereochemistry.

131933-27-2 CAPLUS RN

Adenosine, 2-[(3-ethylpentyl)oxy]- (9CI) (CA INDEX NAME)

RN 131973-26-7 CAPLUS

CN Adenosine, 2-[(4-methylpentyl)oxy]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 137817-83-5 CAPLUS

CN Adenosine, 2-[(2R)-2-phenylbutoxy]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 137817-84-6 CAPLUS

CN Adenosine, 2-[(2S)-2-phenylbutoxy]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 145747-87-1 CAPLUS

CN Adenosine, 2-[(3S)-3-phenylbutoxy]- (CA INDEX NAME)

RN 194154-31-9 CAPLUS

Adenosine, 2-[[(3S)-3,7-dimethyl-6-octenyl]oxy]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

194154-32-0 CAPLUS

CN Adenosine, 2-[[(3R)-3,7-dimethyl-6-octenyl]oxy]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

OSC.G THERE ARE 6 CAPLUS RECORDS THAT CITE THIS RECORD (6 CITINGS) 6 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD 17 RE.CNT ALL CITATIONS AVAILABLE IN THE RE FORMAT

- ANSWER 48 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN 1.6
- 2002:290506 CAPLUS AN
- DN 137:28514
- Tonic activity of the rat adipocyte A1-adenosine receptor ΤI
- AU
- Liang, Hui-Xiu; Belardinelli, Luiz; Ozeck, Mark J.; Shryock, John C. Division of Cardiovascular Medicine, Department of Medicine, University of CS
- Florida, Gainesville, FL, 32610, USA British Journal of Pharmacology (2002), 135(6), 1457-1466 CODEN: BJPCBM; ISSN: 0007-1188
- PB Nature Publishing Group
- DT Journal
- LAEnglish
- Adipocyte A1-adenosine receptors (A1 AdoR) tonically inhibit adenylyl cyclase and lipolysis. Three potential explanations for tonic activity of AΒ AlAdoR of rat epididymal adipocytes were investigated: high affinity of adenosine for the receptor, efficient coupling of receptor activation to response, and spontaneous activity of the receptor in the absence of agonist. The affinity of adenosine for the adipocyte A1AdoR was determined as 4.6 μM by anal. of effects of an irreversible receptor antagonist on agonist concentration-response relationships. In contrast, the potency of adenosine to decrease cAMP in isolated adipocytes was 1.4 nM. Occupancy by agonist of the AlAdoR was efficiently coupled to functional response (decrease of adipocyte cAMP content). Activation by adenosine of less

than 1% of A1AdoRs caused a near-maximal decrease of cAMP in adipocytes. Thus the receptor reserve for adenosine to decrease cAMP content of adipocytes was greater than 99%. Affinities and receptor reserves for other AlAdoR agonists were determined Agonists appeared to differ more in their affinity for the receptor than in their intrinsic efficacy to activate it. AlAdoRs were inactive in the absence of agonist. It is concluded that adipocyte A1AdoR are tonically activated by endogenous adenosine at nanomolar concns. The expression of a high d. of A1AdoR that are efficiently coupled to a functional response enables the adipocyte to respond with high sensitivity to the low-affinity agonist, adenosine. Adipocytes may be a model for cells whose functions are tonically modulated by adenosine present in the interstitium of well-oxygenated tissues.

53296-10-9, 2-Phenylaminoadenosine

RL: BSU (Biological study, unclassified); BIOL (Biological study)
(Al adenosine receptor agonist; tonic activity of rat adipocyte
Al-adenosine receptor in regulation of adenylate cyclase and lipolysis)

53296-10-9 CAPLUS

CN Adenosine, 2-(phenylamino)- (CA INDEX NAME)

Absolute stereochemistry.

OSC.G THERE ARE 16 CAPLUS RECORDS THAT CITE THIS RECORD (16 CITINGS) 16 RE.CNT 42 THERE ARE 42 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 49 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN 2001:780668 CAPLUS L6

ΑN

DN 135:335153

Treatment of neurodegenerative disease ΤΙ

Bamdad, R. Shoshanna; Bamdad, Cynthia C. IN

Minerva Biotechnologies Corporation, USA PA

SO PCT Int. Appl., 82 pp.

CODEN: PIXXD2 Patent

DT

LA English

| FAN. | CNT 1 | | | | | | | | | | | | | | | | |
|------|-------|--------|-------|-----|-----------|-----|------|------|-----------------|------|------|-------|-----|-----|-----|------|-----|
| | | | | | KIND DATE | | | | APPLICATION NO. | | | | | | | | |
| PI | WO 20 | 01078 | 709 | | A2 | | | | 1 | | | | | | | 0010 | 412 |
| | WO 20 | 01078 | 709 | | А3 | | 2003 | 0417 | | | | | | | | | |
| | W | : AE | , AG, | ΑL, | AM, | ΑT, | ΑU, | ΑZ, | ΒA, | BB, | BG, | BR, | BY, | ΒZ, | CA, | CH, | CN, |
| | | CO | , CR, | CU, | CZ, | DE, | DK, | DM, | DZ, | EE, | ES, | FΙ, | GB, | GD, | GE, | GH, | GM, |
| | | HR | , HU, | ID, | IL, | IN, | IS, | JP, | KE, | KG, | KP, | KR, | ΚZ, | LC, | LK, | LR, | LS, |
| | | LT | , LU, | LV, | MA, | MD, | MG, | MK, | MN, | MW, | MX, | ΜZ, | NO, | NZ, | PL, | PT, | RO, |
| | | RU | , SD, | SE, | SG, | SI, | SK, | SL, | ΤJ, | TM, | TR, | TΤ, | TZ, | UA, | UG, | UZ, | VN, |
| | | YU | , ZA, | ZW | | | | | | | | | | | | | |
| | R | W: GH | , GM, | KE, | LS, | MW, | MZ, | SD, | SL, | SZ, | ΤZ, | UG, | ZW, | AM, | ΑZ, | BY, | KG, |
| | | ΚZ | , MD, | RU, | ΤJ, | TM, | ΑT, | BE, | CH, | CY, | DE, | DK, | ES, | FI, | FR, | GB, | GR, |
| | | ΙE | , IT, | LU, | MC, | NL, | PT, | SE, | TR, | BF, | ВJ, | CF, | CG, | CI, | CM, | GA, | GN, |
| | | GW | , ML, | MR, | NE, | SN, | TD, | TG | | | | | | | | | |
| | CA 24 | 04858 | | | A1 | | 2001 | 1025 | | CA 2 | 001- | 2404 | 858 | | 2 | 0010 | 412 |
| | US 20 | 030061 | 187 | | A1 | | 2003 | 0327 | | US 2 | 001- | 8350: | 99 | | 2 | 0010 | 412 |
| | EP 13 | 28261 | | | A2 | | 2003 | 0723 | | EP 2 | 001- | 9271 | 16 | | 2 | 0010 | 412 |
| | R | : AT | , BE, | CH, | DE, | DK, | ES, | FR, | GB, | GR, | ΙT, | LI, | LU, | NL, | SE, | MC, | PT, |
| | | ΙE | , SI, | LT, | LV, | FΙ, | RO, | MK, | CY, | AL, | TR | | | | | | |
| | JP 20 | 03530 | 432 | | T | | 2003 | 1014 | | JP 2 | 001- | 5760 | 10 | | 2 | 0010 | 412 |
| PRAI | US 20 | 00-19 | 5497P | | P | | 2000 | 0412 | | | | | | | | | |
| | US 20 | 00-21 | 4221P | | P | | 2000 | 0623 | | | | | | | | | |
| | US 20 | 00-24 | 3890P | | P | | 2000 | 1115 | | | | | | | | | |
| | WO 20 | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

MARPAT 135:335153

The invention relates to treatments for peptide aggregation associated with AB disease states such as neurodegenerative disease, particularly physiol. associated with Alzheimer's Disease, and non-neurodegenerative disease aggregation. Other aspects of the invention also provides a variety of novel assays for screening candidate drugs. Yet another aspects of the present invention also provides a series of compns. useful for treatment of neurol. disease as determined from these assays. These compns. can be packaged in kits. Other aspects of the invention also relate to the use of these compns. for the treatment and/or prevention of patients susceptible to or exhibiting of a disease characteristic of fibril formation or aberrant protein aggregation. Examples are given for monitoring drug activity as a function of time for drug profiling and cell-based screening assay for candidate drugs for affecting aggregate formation at a variety of stages of biochem. progression.

ΤТ 53296-10-9, 2-Phenylaminoadenosine RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (treatment of neurodegenerative disease)

53296-10-9 CAPLUS RN

Adenosine, 2-(phenylamino)- (CA INDEX NAME) CN

Absolute stereochemistry.

OSC.G THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (2 CITINGS) RE.CNT THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 50 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN 2001:657146 CAPLUS L6

AN

DN 136:175

CoMFA study on adenosine A2A receptor agonists TT

ΑU Doytchinova, Irini; Valkova, Iva; Natcheva, Roumiana

Department of Chemistry, Faculty of Pharmacy, Medical University - Sofia, CS Sofia, 1000, Bulg.

SO Quantitative Structure-Activity Relationships (2001), 20(2), 124-129 CODEN: QSARDI; ISSN: 0931-8771

PB Wiley-VCH Verlag GmbH

DT Journal

T.A English

AB A step-wise CoMFA-based procedure was applied to a series of 51 C2-oxyadenosines to select the most predictive conformation for binding to A2A adenosine receptor. The highest correlation and predictive power was found for conformers with the side chain at the 2-position oriented in the direction opposite to the exocyclic amino group on the adenine ring (torsion $N1C2OR = 120^{\circ}$) and fully extended. The interaction of ligand and receptor is under steric and electrostatic control. The steric contribution is of greater importance for the predictivity than the electrostatic one. Hydrophobicity of the compds. investigated does not affect significantly either the affinity to A2A adenosine receptor, nor the predictivity of the models. 50257-82-4 50257-84-6 50257

50257-85-7 50257-89-1 50257-95-9 131865-78-6 131865-81-1 131865-82-2 131933-15-8 131933-17-0 131933-20-5 131933-26-1 131973-26-7 131933-27-2 137817-83-5 137817-84-6 145747-87-1 194154-31-9 194154-32-0

> RL: BSU (Biological study, unclassified); BIOL (Biological study) (CoMFA study on adenosine A2A receptor agonists)

RN 50257-82-4 CAPLUS CN Adenosine, 2-phenoxy- (CA INDEX NAME)

Absolute stereochemistry.

RN 50257-84-6 CAPLUS

CN Adenosine, 2-butoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 50257-85-7 CAPLUS

CN Adenosine, 2-(pentyloxy)- (CA INDEX NAME)

Absolute stereochemistry.

RN 50257-89-1 CAPLUS

CN Adenosine, 2-(2-hydroxyethoxy)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 50257-95-9 CAPLUS

CN Adenosine, 2-(hexyloxy)- (CA INDEX NAME)

Me
$$(CH_2)_5$$
 NH_2 NH_2

RN

131865-78-6 CAPLUS Adenosine, 2-(phenylmethoxy)- (CA INDEX NAME) CN

Absolute stereochemistry.

131865-81-1 CAPLUS

CN Adenosine, 2-(4-phenylbutoxy)- (CA INDEX NAME)

Absolute stereochemistry.

RN

131865-82-2 CAPLUS Adenosine, 2-[(5-phenylpentyl)oxy]- (CA INDEX NAME) ${\tt CN}$

Absolute stereochemistry.

131933-15-8 CAPLUS RN

Adenosine, 2-(3-methylbutoxy)- (CA INDEX NAME)

131933-17-0 CAPLUS RN

Adenosine, 2-(cyclohexylmethoxy)- (9CI) (CA INDEX NAME) CN

Absolute stereochemistry.

131933-20-5 CAPLUS

Adenosine, 2-(4-cyclohexylbutoxy)- (9CI) (CA INDEX NAME) CN

Absolute stereochemistry.

RN

131933-26-1 CAPLUS Adenosine, 2-(2-ethylbutoxy)- (9CI) (CA INDEX NAME) ${\tt CN}$

Absolute stereochemistry.

131933-27-2 CAPLUS RN

Adenosine, 2-[(3-ethylpentyl)oxy]- (9CI) (CA INDEX NAME)

RN 131973-26-7 CAPLUS

CN Adenosine, 2-[(4-methylpentyl)oxy]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 137817-83-5 CAPLUS

CN Adenosine, 2-[(2R)-2-phenylbutoxy]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 137817-84-6 CAPLUS

CN Adenosine, 2-[(2S)-2-phenylbutoxy]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 145747-87-1 CAPLUS

CN Adenosine, 2-[(3S)-3-phenylbutoxy]- (CA INDEX NAME)

194154-31-9 CAPLUS RN

Adenosine, 2-[[(3S)-3,7-dimethyl-6-octenyl]oxy]- (9CI) (CA INDEX NAME) CN

Absolute stereochemistry.

194154-32-0 CAPLUS

Adenosine, 2-[[(3R)-3,7-dimethyl-6-octenyl]oxy]- (9CI) (CA INDEX NAME) CN

Absolute stereochemistry.

THERE ARE 9 CAPLUS RECORDS THAT CITE THIS RECORD (9 CITINGS) THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD OSC.G 9 RE.CNT 17

ALL CITATIONS AVAILABLE IN THE RE FORMAT

- Г6 ANSWER 51 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN
- 2001:597739 CAPLUS AN
- DN 135:162508
- Adenosine A2a receptor antagonist for treating and preventing hepatic ΤI fibrosis, cirrhosis and fatty liver
- ΤN Cronstein, Bruce N.; Chan, Edwin
- $\mathbb{P} \mathbb{A}$ New York University, USA
- SO PCT Int. Appl., 48 pp.

CODEN: PIXXD2

- DT Patent
- ${\rm L}{\rm A}$ English

| FAN. | CNT 1 | | | | |
|------|-----------------|-----------|----------------|-------------------|-------------|
| | PATENT NO. | KIND DA | ATE APP | LICATION NO. | DATE |
| | | | | | |
| PΙ | WO 2001058241 | A2 20 | 0010816 WO | 2001-US4341 | 20010212 |
| | WO 2001058241 | A9 20 | 0021017 | | |
| | W: AU, CA, JP | | | | |
| | RW: AT, BE, CH, | CY, DE, D | OK, ES, FI, FR | , GB, GR, IE, IT, | LU, MC, NL, |
| | PT, SE, TR | | | | |
| | CA 2398908 | A1 20 | 0010816 CA | 2001-2398908 | 20010212 |
| | CA 2398908 | C 20 | 091215 | | |
| | AU 2001038124 | A 20 | 0010820 AU | 2001-38124 | 20010212 |
| | US 20020002145 | A1 20 | 0020103 US | 2001-780365 | 20010212 |
| | | | | | |

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US 6555545
                           В2
                                 20030429
     JP 2004502640
                                  20040129
                                              JP 2001-557366
                                                                      20010212
     AU 2001238124
                           В2
                                 20060525
                                              AU 2001-238124
                                                                      20010212
                                 20080507
                                              EP 2001-910529
     EP 1272897
                           В1
                                                                      20010212
         R: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LI, LU, MC,
             NL, PT, SE, TR
     AT 394104
                                  20080515
                                              AT 2001-910529
                                                                      20010212
     PT 1272897
                           \mathbf{F}
                                 20080818
                                              PT 2001-910529
                                                                      20010212
     ES 2307593
                           ΤЗ
                                 20081201
                                              ES 2001-910529
                                                                      20010212
     AU 2006203699
                                 20060921
                                              AU 2006-203699
                                                                      20060825
                           Α1
     AU 2006203699
                                 20100204
                           В2
PRAI US 2000-181546P
                           P
                                  20000210
     AU 2001-238124
                           А3
                                 20010212
     WO 2001-US4341
                                 20010212
                           W
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ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

Adenosine A2a receptor antagonists such as CGS-21680 or adenosine derivs are used for treating and preventing hepatic fibrosis, cirrhosis and fatty liver. The adenosine A2a receptor antagonist CGS-21680 increased collagen production by rHSC.

53296-10-9, 2-Phenylaminoadenosine TT

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (adenosine A2a receptor antagonists for treating and preventing hepatic fibrosis, cirrhosis and fatty liver)

RN

53296-10-9 CAPLUS Adenosine, 2-(phenylamino)- (CA INDEX NAME) CN

Absolute stereochemistry.

OSC.G 3 THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD (3 CITINGS)

- 1.6 ANSWER 52 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN
- 2001:39215 CAPLUS AN
- DN 134:216814
- Design, Synthesis, and Evaluation of Novel A2A Adenosine Receptor Agonists TΙ
- Rieger, Jayson M.; Brown, Milton L.; Sullivan, Gail W.; Linden, Joel; ΑU Macdonald, Timothy L.
- CS Departments of Chemistry and Medicine, University of Virginia, Charlottesville, VA, 22904-4319, USA
 Journal of Medicinal Chemistry (2001), 44(4), 531-539
- SO CODEN: JMCMAR; ISSN: 0022-2623
- PB American Chemical Society
- DT Journal
- English LΑ
- CASREACT 134:216814 OS
- The authors have been interested in the design, synthesis, and evaluation of novel adenosine A2A agonists. Through the use of comparative mol. field anal. (CoMFA) the authors have generated a training model that includes 78 structurally diverse A2A agonists and correlated their affinity for isolated rat brain receptors with differences in their structural and electrostatic properties. The authors validated this model by predicting the activity of a test set that included 24 addnl. A2A agonists. Our CoMFA model, which incorporates the physiochem. property of dipole and selects against A1 receptor activity, generated a correlated final model (r2 = 0.891) that provides for enhanced A2A selectivity and predictability. Synthesis, pharmacol. evaluation, and modeling of four novel ligands further validate the utility and predictive power ($r2 = r^2$) 0.626) of the CoMFA model.
- 50257-82-4 50257-84-6 50257-89-1 50257-95-9 131865-78-6 131865-81-1 131933-17-0 131865-82-2 131933-20-5 131933-26-1 131933-27-2 131973-26-7

Absolute stereochemistry.

RN 50257-84-6 CAPLUS CN Adenosine, 2-butoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 50257-89-1 CAPLUS

CN Adenosine, 2-(2-hydroxyethoxy)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 50257-95-9 CAPLUS CN Adenosine, 2-(hexyloxy)- (CA INDEX NAME)

RN 131865-78-6 CAPLUS

CN Adenosine, 2-(phenylmethoxy)- (CA INDEX NAME)

Absolute stereochemistry.

RN 131865-81-1 CAPLUS

CN Adenosine, 2-(4-phenylbutoxy)- (CA INDEX NAME)

Absolute stereochemistry.

RN 131865-82-2 CAPLUS

CN Adenosine, 2-[(5-phenylpentyl)oxy]- (CA INDEX NAME)

Absolute stereochemistry.

RN 131933-17-0 CAPLUS

CN Adenosine, 2-(cyclohexylmethoxy)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 131933-20-5 CAPLUS

CN Adenosine, 2-(4-cyclohexylbutoxy)- (9CI) (CA INDEX NAME)

RN 131933-26-1 CAPLUS CN Adenosine, 2-(2-ethylbutoxy)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 131933-27-2 CAPLUS

CN Adenosine, 2-[(3-ethylpentyl)oxy]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 131973-26-7 CAPLUS

CN Adenosine, 2-[(4-methylpentyl)oxy]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 137817-84-6 CAPLUS

CN Adenosine, 2-[(2S)-2-phenylbutoxy]- (9CI) (CA INDEX NAME)

145747-87-1 CAPLUS

Adenosine, 2-[(3S)-3-phenylbutoxy]- (CA INDEX NAME)

Absolute stereochemistry.

OSC.G THERE ARE 64 CAPLUS RECORDS THAT CITE THIS RECORD (64 CITINGS) THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD RE.CNT 33 ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 53 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN

2000:573631 CAPLUS ΑN

133:182707 DN

TΙ Hair growth stimulants containing purinoceptor stimulants and their screening method

Nakaya, Yutaka; Arase, Seiji; Imamura, Koji Taisho Pharmaceutical Co., Ltd., Japan IN

PASO

PCT Int. Appl., 62 pp.

CODEN: PIXXD2 Patent

DT LA

Japanese

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|--------------------------------|---------|----------------------|------------------------|-------------|
| PI | WO 2000047172 | A1 | 20000817 | WO 2000-JP694 | 20000209 |
| | | • | , DK, ES, F | I, FR, GB, GR, IE, IT, | LU, MC, NL, |
| | PT, SE
JP 2000297015 | А | 20001024 | JP 2000-34181 | 20000210 |
| | JP 4465779
JP 2009142281 | B2
A | 20100519
20090702 | JP 2009-423 | 20090105 |
| PRAI | JP 1999-33502
JP 1999-33503 | A
A | 19990210
19990210 | | |
| | JP 1999-33504 | A | 19990210 | | |
| | JP 1999-33505
JP 2000-34181 | A
A3 | 19990210
20000210 | | |
| OS | MARPAT 133:182707 | | | | |

AB Disclosed are excellent hair growth stimulants having novel function mechanisms different from the conventional hair growth stimulants and a method for screening the same. The hair growth stimulants contain as the active ingredient compds. exerting an effect of stimulating purine receptors (adenosine receptor, ATP receptor, etc.), an effect of potentiating the above effect, and an effect of liberating compds. having an effect of stimulating purine receptors (adenosine, adenosine derivs., adenosine metabolites, etc.) from cells. The screening method comprises adding a test substance to cells which have been transformed with an ABC transporter gene and a purine derivative receptor gene and using the calcium influx at this point as an indication. A hair gel containing N6-(L-2-phenylisopropyl)adenosine 0.5, polyethyleneglycol monostearate 1, 1,3-butylene glycol 7, carboxyvinyl polymer 1.5, diisopropanol amine q.s.,

ethanol 40, and water q.s. to 100 % was prepared 53296-10-9, 2-Phenylaminoadenosine RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses) (hair growth stimulants containing purinoceptor stimulants and their screening method) 53296-10-9 CAPLUS Adenosine, 2-(phenylamino)- (CA INDEX NAME) RM CN

Absolute stereochemistry.

OSC.G THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD (5 CITINGS) RE.CNT 40 THERE ARE 40 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 54 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN

2000:405019 CAPLUS AN

DN 133:115443

TΙ Thermodynamically distinct high and low affinity states of the A1 adenosine receptor induced by G protein coupling and guanine nucleotide ligation states of G proteins

ΑU Lorenzen, Anna; Guerra, Laura; Campi, Franca; Lang, Heidrun; Schwabe, Ulrich; Borea, Pier Andrea

Pharmakologisches Institut der Universitat Heidelberg, Heidelberg, CS D-69120, Germany

British Journal of Pharmacology (2000), 130(3), 595-604 CODEN: BJPCBM; ISSN: 0007-1188 SO

PB Nature Publishing Group

DT Journal

LΑ English

 $1\ \mbox{The influence}$ of the receptor-G protein coupling state and the guanine ΔB nucleotide ligation state of the G protein on the binding mechanism of Al adenosine receptor ligands has been investigated in [3H]-1,3-dipropyl-8-cyclopentylxanthine ([3H]-DPCPX) binding studies in rat brain membranes. Thermodn. parameters of binding of Al adenosine receptor ligands of different intrinsic activities were determined in the absence or presence of GDP and compared to the binding mechanism after receptor-G protein uncoupling. 2 In agreement with previous studies, it was found that xanthine and non-xanthine antagonists showed an enthalpyor enthalpy- and entropy-driven binding mechanism under all conditions. In contrast to antagonists, the binding mechanism of agonists was strongly affected by the G protein coupling state or the absence or presence of guanine nucleotides. Binding of full and partial agonists to the high-affinity state of the A1 receptor was entropy-driven in the absence of GDP, and a good correlation between intrinsic activities and the contribution of entropy was observed In the absence of GDP, binding of full and partial agonists and antagonists to the high affinity state of the receptor was thermodynamically discriminated. In contrast, no such discrimination was found in the presence of GDP. 4 The binding mechanism of agonists to the low-affinity state of the receptor was identical to that of antagonists only after uncoupling of the receptor from G proteins by pretreatment with N-ethylmaleimide or guanosine-5'- $(\gamma$ -thio)-triphosphate (GTP γ S). 5 These results indicate the existence of two thermodynamically distinct high- and low-affinity states of the Al adenosine receptor. 53296-10-9, CV 1808 RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process) (thermodynamically distinct high and low affinity states of A1 adenosine receptor induced by G protein coupling and guanine nucleotide

ligation states of G proteins) 53296-10-9 CAPLUS Adenosine, 2-(phenylamino)- (CA INDEX NAME) CN

Absolute stereochemistry.

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ИН2
PhNH
                                           ΩН
                        НС
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OSC.G 1.3 THERE ARE 13 CAPLUS RECORDS THAT CITE THIS RECORD (13 CITINGS) RE.CNT 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

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ANSWER 55 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN
Ι6
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- 2000:258227 CAPLUS ΑN
- DN 133:37724
- ΤТ Molecular modeling of 2-alkyloxy- and 2-aralkyloxy-adenosine Al- and A2-agonists
- ΔII Matova, Mariana M.; Nacheva, Rumiana N.; Boicheva, Sirma V.
- Department of Chemistry and Biochemistry, Faculty of Medicine, Medical CS University, Sofia, 1431, Bulg.
- Drug Design and Discovery (2000), 16(4), 255-270, 5 plates CODEN: DDDIEV; ISSN: 1055-9612 SO
- PB Harwood Academic Publishers
- DT Journal
- English LΑ
- The C2-region of adenosine A1- and A2-receptors by a mol. modeling AB technique has been extended and applied to a series of 2-substituted adenosines reported by Olsson, et al. The similarity and dissimilarity of the structure maps obtained by mol. modeling have been used as a basis for the mapping of the analyzed receptor domain. The proposed model of the C2-region of the A1-receptor consists of a narrow and sterically limited area that interacts well electrostatically with small and electron rich moieties. Olsson's provisional model of the C2-region of the A2-receptor has been extended with two subsites, as well as with a forbidden area near the C2-position of the purine ring. The conformational anal. performed in the study does not support the hypothesis of Olsson et al. that adenosine C2 substituents may partly occupy the same receptor domain as the N6 substituents of the A1-receptor. The occupation of the cycloalkyl subsite increases the receptor selectivity while the occupation of the other subsite by aryl rings, fixed at a parallel position to the purine system, highly enhances the receptor affinity.

50257-82-4 50257-84-6 ΤТ 50257-85-7 50257-89-1 50257-95-9 131865-78-6 131865-81-1 131865-82-2 131933-15-8 131933-17-0 131933-20-5 131933-26-1 131933-27-2 131973-26-7 137817-83-5 137817-84-6 145747-87-1 194154-31-9 194154-32-0

> RL: BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study); PROC (Process)

(mol. modeling of 2-alkyloxy- and 2-aralkyloxy-adenosine A1- and A2-agonists)

RN

50257-82-4 CAPLUS Adenosine, 2-phenoxy- (CA INDEX NAME) CN

RN

50257-84-6 CAPLUS Adenosine, 2-butoxy- (9CI) (CA INDEX NAME) CN

Absolute stereochemistry.

50257-85-7 CAPLUS

Adenosine, 2-(pentyloxy)- (CA INDEX NAME) CN

Absolute stereochemistry.

RN

50257-89-1 CAPLUS Adenosine, 2-(2-hydroxyethoxy)- (9CI) (CA INDEX NAME) ${\tt CN}$

Absolute stereochemistry.

50257-95-9 CAPLUS RN

Adenosine, 2-(hexyloxy)- (CA INDEX NAME)

Me
$$(CH_2)_5$$
 NH_2 NH_2

RN

131865-78-6 CAPLUS Adenosine, 2-(phenylmethoxy)- (CA INDEX NAME) CN

Absolute stereochemistry.

131865-81-1 CAPLUS

CN Adenosine, 2-(4-phenylbutoxy)- (CA INDEX NAME)

Absolute stereochemistry.

RN

131865-82-2 CAPLUS Adenosine, 2-[(5-phenylpentyl)oxy]- (CA INDEX NAME) ${\tt CN}$

Absolute stereochemistry.

131933-15-8 CAPLUS RN

Adenosine, 2-(3-methylbutoxy)- (CA INDEX NAME)

131933-17-0 CAPLUS RN

Adenosine, 2-(cyclohexylmethoxy)- (9CI) (CA INDEX NAME) CN

Absolute stereochemistry.

131933-20-5 CAPLUS

Adenosine, 2-(4-cyclohexylbutoxy)- (9CI) (CA INDEX NAME) CN

Absolute stereochemistry.

RN

131933-26-1 CAPLUS Adenosine, 2-(2-ethylbutoxy)- (9CI) (CA INDEX NAME) ${\tt CN}$

Absolute stereochemistry.

131933-27-2 CAPLUS RN

Adenosine, 2-[(3-ethylpentyl)oxy]- (9CI) (CA INDEX NAME)

RN 131973-26-7 CAPLUS

CN Adenosine, 2-[(4-methylpentyl)oxy]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 137817-83-5 CAPLUS

CN Adenosine, 2-[(2R)-2-phenylbutoxy]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 137817-84-6 CAPLUS

CN Adenosine, 2-[(2S)-2-phenylbutoxy]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 145747-87-1 CAPLUS

CN Adenosine, 2-[(3S)-3-phenylbutoxy]- (CA INDEX NAME)

RN 194154-31-9 CAPLUS

CN Adenosine, 2-[[(3S)-3,7-dimethyl-6-octenyl]oxy]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 194154-32-0 CAPLUS

CN Adenosine, 2-[[(3R)-3,7-dimethyl-6-octenyl]oxy]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

OSC.G 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (2 CITINGS) RE.CNT 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

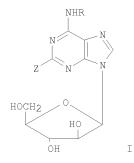
- L6 ANSWER 56 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN
- AN 1999:819059 CAPLUS
- DN 132:35992
- \mbox{TI} $\,$ Preparation of novel arabinosyladenine derivatives having a resistance to the metabolism by ADA and antiviral action
- IN Yamada, Toshio; Yamanishi, Koichi
- PA Nippon Zoki Pharmaceutical Co., Ltd., Japan
- SO Eur. Pat. Appl., 19 pp.
- CODEN: EPXXDW
- DT Patent
- LA English

FAN.CNT 1

| T Y YT | 0111 | | | | | | | | | | | | | | | | | |
|--------|-----------|------|-------|-----|-----|-----|----------|-------|------|-----|--------|----------|------|-----|-----|-----|------|-----|
| | PA1 | CENT | NO. | | | KIN |) | DATE | A | PPI | LICATI | DATE | | | | | | |
| | | | | | | | _ | | | _ | | | | | | | | |
| PI | EP 967220 | | | | A1 | | 19991229 | | | P 1 | 1999-1 | 19990623 | | | | | | |
| | EP | 9672 | 20 | | | В1 | | 2003 | 0409 | | | | | | | | | |
| | | R: | AT, | BE, | CH, | DE, | DK | , ES, | FR, | GB, | GR, | ΙT, | LI, | LU, | NL, | SE, | MC, | PT, |
| | | | ΙE, | SI, | LT, | LV, | FΙ | , RO | | | | | | | | | | |
| | JΡ | 2000 | 00769 | 95 | | Α | | 2000 | 0111 | J | P 1 | 1998-1 | 1772 | 9 | | 19 | 9980 | 624 |
| | JΡ | 3619 | 017 | | | В2 | | 2005 | 0209 | | | | | | | | | |
| | KR | 2000 | 00633 | 39 | | Α | | 2000 | 0125 | K | R 1 | 1999-2 | 2344 | 3 | | 19 | 9900 | 622 |
| | AΤ | 2369 | 23 | | | T | | 2003 | 0415 | A | T 1 | 1999-1 | 1119 | 45 | | 19 | 9900 | 623 |
| | TW | 5642 | 49 | | | В | | 2003 | 1201 | T | W 1 | 1999-1 | 1105 | 23 | | 19 | 9900 | 623 |
| | | | | | | | | | | | | | | | | | | |

10/598,520

| ES 2196676 | Т3 | 20031216 | ES 1999-111945 | 19990623 |
|---------------------------|-------|-------------|------------------------|----------|
| CN 1242373 | A | 20000126 | CN 1999-108908 | 19990624 |
| CN 1146573 | C | 20040421 | | |
| US 6242429 | B1 | 20010605 | US 1999-339257 | 19990624 |
| PRAI JP 1998-177209 | A | 19980624 | | |
| ASSIGNMENT HISTORY FOR US | PATEN | T AVAILABLE | IN LSUS DISPLAY FORMAT | |
| OS MARPAT 132:35992 | | | | |
| GI | | | | |



Novel 2-substituted arabinosyladenine derivs. I (where Z = an alkyl group having more than 4 carbon atoms, alkenyl or alkynyl; R = hydrogen or lower alkyl group) are prepared For example, 5-amino-1-(β -D-arabinofuranosyl)-4-cyanoimidazole is made to react with a nitrile of the formula Z-CN (where Z = an alkyl group having more than 4 carbon atoms, alkenyl or alkynyl) to yield a 2-substituted Ara-A derivative The compds. of the present invention have a resistance to the metabolism by ADA and are useful as therapeutic or preventive agents for diseases infected by DNA virus such as herpes simplex virus (HSV), herpes zoster virus, cytomegalovirus (CMV), adenovirus, hepatitis virus or vaccinia virus.

IT 252552-21-9P 252552-23-1P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(preparation of novel arabinosyladenine derivs. having a resistance to the metabolism by ADA and antiviral action)

RN 252552-21-9 CAPLUS

CN 9H-Purin-6-amine, 9- β -D-arabinofuranosyl-2-octyl- (CA INDEX NAME)

Absolute stereochemistry.

Me
$$(CH_2)$$
 7 N N R R R OH

RN 252552-23-1 CAPLUS

CN 9H-Purin-6-amine, $9-\beta$ -D-arabinofuranosyl-2-dodecyl- (CA INDEX NAME)

OSC.G THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD (4 CITINGS) RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 57 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN

1999:771170 CAPLUS AN

DN 132:102410

Molecular Recognition of Modified Adenine Nucleotides by the TT P2Y1-Receptor. 1. A Synthetic, Biochemical, and NMR Approach

ΑU Halbfinger, Efrat; Major, Dan T.; Ritzmann, Marco; Ubl, Joachim; Reiser, Georg; Boyer, Jose L.; Harden, Kendall T.; Fischer, Bilha Department of Chemistry Gonda-Goldschmied Center, Bar-Ilan University,

CS Ramat-Gan, 52900, Israel

Journal of Medicinal Chemistry (1999), 42(26), 5325-5337 CODEN: JMCMAR; ISSN: 0022-2623 SO

PB American Chemical Society

DT Journal

LAEnglish

AΒ The remarkably high potencies of 2-thioether-adenine nucleotides regarding the activation of the P2Y1-receptor (P2Y1-R) in turkey erythrocyte membranes represent some of the largest substitution-promoted increases in potencies over that of a natural receptor ligand. This paper describes the investigation regarding the origin of the high potency of these P2Y1-R ligands over that of ATP. For this study, an integrated approach was employed combining the synthesis of new ATP analogs, their biochem. evaluation, and their SAR anal. involving NMR expts. and theor. calcns. These expts. and calcns. were performed to elucidate the conformation and to evaluate the electronic nature of the investigated P2Y1-R ligands. ATP analogs synthesized included derivs. where C2 or C8 positions were substituted with electron-donating groups such as ethers, thioethers, or amines. The compds. were tested for their potency to induce P2Y1-R-mediated activation of phospholipase C in turkey erythrocytes and Ca2+ response in rat astrocytes. 8-Substituted ATP and AMP derivs. had little or no effect on phospholipase C or on calcium levels, whereas the corresponding 2-substituted ATP analogs potently increased the levels of inositol phosphates and [Ca2+]i. AMP analogs were ineffective except for 2-butylthio-AMP which induced a small Ca2+ response. P2Y1-R activity of these compds. was demonstrated by testing these ligands also on NG108-15 neuroblastoma + glioma hybrid cells. NMR data together with theor. calcns. imply that steric, rather than electronic, effects play a major role in ligand binding to the P2Y1-R. Hydrophobic interactions and H-bonds of the C2 substituent appear to be important determinants of a P2Y1-R ligand affinity.

ΤТ 50257-84-6P, 2-(Butoxy)adenosine

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and structure activity relations of modified adenine nucleotides as P2Y1 receptor agonists)

RN 50257-84-6 CAPLUS

Adenosine, 2-butoxy- (9CI) (CA INDEX NAME)

OSC.G 35 THERE ARE 35 CAPLUS RECORDS THAT CITE THIS RECORD (36 CITINGS)
RE.CNT 51 THERE ARE 51 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 58 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN

AN 1999:173299 CAPLUS

DN 130:276244

 $\ensuremath{\mathsf{TI}}$. Using theoretical descriptors in a correlation analysis of adenosine activity

AU Famini, George R.; Loumbev, Valery P.; Frykman, Eric K.; Wilson, Leland Y.

CS Development Engineering Center, Edgewood Research, Aberdeen, MD, 21010, USA

SO Quantitative Structure-Activity Relationships (1998), 17(6), 558-564 CODEN: QSARDI; ISSN: 0931-8771

PB Wiley-VCH Verlag GmbH

DT Journal

LA English

AB A theor. linear solvation energy relationship (TLSER) is used as a model for relating 2 guinea pig heart muscle activities to a set of computationally derived mol. descriptors for a set of 24 2-alkoxy and 25 2-aryloxy adenosines. The resulting equations are consistent with the structure activity relationship (SAR) study showing an increase in activity at 1 site with increase in substituent size and a hydrophobicity index.

IT 50257-82-4 50257-84-6 50257-85-7 50257-89-1 50257-95-9 131865-78-6 131865-81-1 131865-82-2 131933-15-8 131933-27-2 131973-26-7

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(using theor. descriptors in a correlation anal. of adenosine activity)

RN 50257-82-4 CAPLUS

CN Adenosine, 2-phenoxy- (CA INDEX NAME)

Absolute stereochemistry.

RN 50257-84-6 CAPLUS

CN Adenosine, 2-butoxy- (9CI) (CA INDEX NAME)

RN 50257-85-7 CAPLUS

CN Adenosine, 2-(pentyloxy)- (CA INDEX NAME)

Absolute stereochemistry.

RN 50257-89-1 CAPLUS

CN Adenosine, 2-(2-hydroxyethoxy)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 50257-95-9 CAPLUS

CN Adenosine, 2-(hexyloxy)- (CA INDEX NAME)

Absolute stereochemistry.

RN 131865-78-6 CAPLUS

CN Adenosine, 2-(phenylmethoxy)- (CA INDEX NAME)

131865-81-1 CAPLUS RN

Adenosine, 2-(4-phenylbutoxy)- (CA INDEX NAME) CN

Absolute stereochemistry.

131865-82-2 CAPLUS

Adenosine, 2-[(5-phenylpentyl)oxy]- (CA INDEX NAME) CN

Absolute stereochemistry.

RN

131933-15-8 CAPLUS Adenosine, 2-(3-methylbutoxy)- (CA INDEX NAME) ${\tt CN}$

Absolute stereochemistry.

131933-17-0 CAPLUS RN

Adenosine, 2-(cyclohexylmethoxy) - (9CI) (CA INDEX NAME)

131933-20-5 CAPLUS RN

Adenosine, 2-(4-cyclohexylbutoxy)- (9CI) (CA INDEX NAME) CN

Absolute stereochemistry.

131933-26-1 CAPLUS

Adenosine, 2-(2-ethylbutoxy)- (9CI) (CA INDEX NAME) CN

Absolute stereochemistry.

RN

131933-27-2 CAPLUS Adenosine, 2-[(3-ethylpentyl)oxy]- (9CI) (CA INDEX NAME) ${\tt CN}$

Absolute stereochemistry.

131973-26-7 CAPLUS RN

Adenosine, 2-[(4-methylpentyl)oxy]- (9CI) (CA INDEX NAME)

OSC.G 10 THERE ARE 10 CAPLUS RECORDS THAT CITE THIS RECORD (10 CITINGS)
RE.CNT 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

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L6 ANSWER 59 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN AN 1999:27719 CAPLUS
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DN 130:90521

TI Methods for the inhibition of neuronal activity and treatment of pain syndromes or epilepsy by local delivery of adenosine

IN Mohler, Hanns; Boison, Detlev

PA Switz.

SO PCT Int. Appl., 43 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT

| PAN. | PA: | CENT : | | | | KIN | D | DATE | | | APPL | ICAT | ION : | NO. | | | ATE | |
|------|-----|--------|------|-----|-----|-----|-----|------|------|-----|----------|----------|-----------|-------|-----|-----|------|-----|
| PI | | 9858 | | | | A1 | | 1998 | 1230 | |
Wo 1 |
998- |
IB97: |
3 | | | 9980 | |
| | | W: | AL, | AM, | AT, | ΑU, | ΑZ, | BA, | BB, | BG, | BR, | BY, | CA, | CH, | CN, | CU, | CZ, | DE, |
| | | | DK, | EE, | ES, | FI, | GB, | GE, | GH, | GM, | GW, | HU, | ID, | IL, | IS, | JP, | KE, | KG, |
| | | | KP, | KR, | ΚZ, | LC, | LK, | LR, | LS, | LT, | LU, | LV, | MD, | MG, | MK, | MN, | MW, | MX, |
| | | | ΝO, | NZ, | PL, | PT, | RO, | RU, | SD, | SE, | SG, | SI, | SK, | SL, | ΤJ, | TM, | TR, | TΤ, |
| | | | UA, | UG, | UZ, | VN, | YU, | ZW | | | | | | | | | | |
| | | RW: | GH, | GM, | KE, | LS, | MW, | SD, | SZ, | UG, | ZW, | ΑT, | BE, | CH, | CY, | DE, | DK, | ES, |
| | | | FI, | FR, | GB, | GR, | IE, | ΙT, | LU, | MC, | NL, | PT, | SE, | BF, | ΒJ, | CF, | CG, | CI, |
| | | | CM, | GΑ, | GN, | ML, | MR, | NE, | SN, | TD, | TG | | | | | | | |
| | US | 6110 | 902 | | | Α | | 2000 | 0829 | | US 1 | 997- | 8810 | 38 | | 1 | 9970 | 623 |
| | ΑU | 9876 | 711 | | | Α | | 1999 | 0104 | | AU 1 | 998- | 7671 | 1 | | 1 | 9980 | 623 |
| | EP | 9964 | 53 | | | A1 | | 2000 | 0503 | | EP 1 | 998- | 9245 | 21 | | 1 | 9980 | 623 |
| | EP | 9964 | 53 | | | В1 | | 2004 | 0428 | | | | | | | | | |
| | | R: | CH, | DE, | GB, | LΙ | | | | | | | | | | | | |
| PRAI | US | 1997 | -881 | 038 | | Α | | 1997 | 0623 | | | | | | | | | |
| | WO | 1998 | -IB9 | 73 | | W | | 1998 | 0623 | | | | | | | | | |

AB The invention relates to the treatment of conditions associated with neuronal activity. Specifically, the invention is drawn to methods and compns. for administering adenosine to inhibit pain syndromes or epilepsy in a patient.

IT 53296-10-9, 2-Phenylaminoadenosine

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(adenosine local delivery method for inhibition of neuronal activity and treatment of pain syndromes or epilepsy)

RN 53296-10-9 CAPLUS

CN Adenosine, 2-(phenylamino) - (CA INDEX NAME)

RE.CNT 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

- ANSWER 60 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN 1.6
- AN 1998:810073 CAPLUS
- 130:177447 DN
- Differences in the order of potency for agonists but not antagonists at TΙ human and rat adenosine A2A receptors
- Kull, Bjorn; Arslan, Guilia; Nilsson, Christer; Owman, Christer; Lorenzen, ΑU Anna; Schwabe, Ulrich; Fredholm, Bertil B.
- Department of Physiology and Pharmacology, Section of Molecular CS Neuropharmacology, Karolinska Institutet, Stockholm, S-171 77, Swed.
- Biochemical Pharmacology (1999), 57(1), 65-75 CODEN: BCPCA6; ISSN: 0006-2952 SO
- PB Elsevier Science Inc.
- DT Journal
- LA English
- To examine possible species differences in pharmacol., rat adenosine A2A receptors were studied in PC12 (pheochromocytoma) cells, and human receptors in Chinese hamster ovary (CHO) cells transfected with the cloned human A2A receptor cDNA. Using [3H]-5-amino-7-(2-phenylethyl)-2-(2furyl)pyrazolo[4,3-e]-1,2,4-triazolo[1,5-c]pyrimidine ([3H]-SCH 58261) as radioligand, the estimated Bmax (maximal binding) was 538 and 2085 fmol/mg in CHO and PC12 cells, resp. The Kd (dissociation constant) values for [3H]-SCH 58261 were 1.05 and 5.6 nM in the 2 cell types, resp. The order of potency of antagonists and most agonists was the same in both cell types, but 2-phenylaminoadenosine and 2-chloroadenosine were relatively less potent in PC12 cells than in CHO cells. In the functional assay, using cAMP accumulation, all agonists tested were more potent in CHO than in PC12 cells, but this could not be readily explained by differences in adenylyl cyclase or in the expression of G proteins. As in the case of binding, the relative agonist potencies were similar for most compds., but 2-phenylaminoadenosine and 2-chloroadenosine were more potent at human A2A receptors in CHO cells than predicted from the data obtained on rat A2A receptors in PC12 cells. The antagonists were approx. equipotent in the 2 cells. These results show that, despite only small differences in receptor amino acid sequences and no difference in antagonist pharmacol., the relative order of potency of receptor agonists can differ between species homologues of the adenosine A2A receptor.
- 53296-10-9, CV 1808

RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

(species differences in potency at human and rat adenosine A2A receptors of)

- 53296-10-9 CAPLUS
- CN Adenosine, 2-(phenylamino) - (CA INDEX NAME)

- 30 THERE ARE 30 CAPLUS RECORDS THAT CITE THIS RECORD (30 CITINGS) OSC.G RE.CNT 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD
- ALL CITATIONS AVAILABLE IN THE RE FORMAT
- 1.6 ANSWER 61 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN 1998:789051 CAPLUS AN
- DN 130:29255
- Medicinal composition for prevention or treatment of hepatopathy ΤI
- Ozaki, Takayuki; Hirata, Yoshihisa; Tada, Shin-ichi ΤN
- PANippon Shinyaku Co., Ltd., Japan
- PCT Int. Appl., 26 pp.

CODEN: PIXXD2 DT Patent LΑ Japanese FAN.CNT 1 PATENT NO. KIND DATE APPLICATION NO. DATE WO 9852611 19981126 WO 1998-JP2223 19980520 PΙ Α1 W: AT, AU, BR, CA, CH, CN, DE, DK, ES, GB, HU, ID, IL, JP, KR, MX, NO, NZ, PT, RU, SE, UA, US, VN, AM, AZ, BY, KG, KZ, MD, TJ, TM RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT. SE AU 9874495 19981211 AU 1998-74495 19980520 Α EP 1998-921742 EP 983768 Α1 20000308 19980520 R: BE, CH, DE, ES, FR, GB, IT, LI, NL PRAI JP 1997-133480 Α 19970523 JP 1997-192555 19970717 Α WO 1998-JP2223 W 19980520 MARPAT 130:29255 AB A medicinal composition containing an adenosine A2 receptor agonist as an active ingredient, is effective in the prevention or treatment of hepatopathy. $deoxy-N-ethyl-\beta-D-ribofuranuronamide$ was i.p. or orally administered to mice to show inhibitory activities against con A-induced liver damages. Tablet formulations containing the active ingredients are also provided. 53296-10-9, 2-(Phenylamino)adenosine RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (adenosine A2 receptor agonists for treatment of hepatopathy) 53296-10-9 CAPLUS CN Adenosine, 2-(phenylamino) - (CA INDEX NAME)

Absolute stereochemistry.

OSC.G 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)
RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

Г6 ANSWER 62 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN 1998:727900 CAPLUS AΝ DN 130:90482 Activation of various subtypes of G-protein α subunits by partial ΤI agonists of the adenosine Al receptor Lorenzen, Anna; Lang, Heidrun; Schwabe, Ulrich ΑIJ CS INSTITUTE OF PHARMACOLOGY, UNIVERSITY OF HEIDELBERG, HEIDELBERG, 69120, Germany SO Biochemical Pharmacology (1998), 56(10), 1287-1293 CODEN: BCPCA6; ISSN: 0006-2952 PB Elsevier Science Inc. DT English

IA English

AB The activation of different G protein subtypes by the rat adenosine Al receptor initiated by stimulation with the full agonist 2-chloro-N6-cyclopentyladenosine (CCPA) and by six structurally distinct partial agonists of this receptor was investigated. Endogenous G protein α subunits in rat cortical membranes were inactivated by N-ethylmaleimide (NEM). Activation of rat recombinant myristoylated α o, α il, α i2 and α i3 by partial agonists in comparison to the full agonist was assessed by guanosine-5'-(γ -[35S]thio)triphosphate ([35S]GTP γ S) binding after reconstitution of G protein α subunits with the adenosine Al

receptor in N-ethylmaleimide-treated membranes.

2-Chloro-N6-cyclopentyladenosine and 3'-deoxy-N6-cyclopentyladenosine
(3'-d-CPA), the partial agonist with the highest intrinsic activity, were significantly more potent in activation of αi subtypes than αο. In contrast, 5'-methylthioadenosine (MeSA),

2'-deoxy-2-chloroadenosine (cladribine), 2'-deoxy-N6-cyclopentyladenosine
(2'-d-CPA), 2-phenylaminoadenosine (CV 1808) and
C8-aminopropyl-N6-cyclopentyladenosine (C8-aminopropyl-CPA) did not exhibit higher potency for Go or any Gi subtype. All partial agonists, although carrying structurally different modifications, showed higher relative intrinsic activities in activation of Gi than of Go, indicating that Gi-coupled pathways may be activated selectively via the Al receptor by partial agonists, but not Go-mediated responses.

53296-10-9, CV 1808

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)

(activation of various subtypes of G-protein α subunits by partial agonists of the adenosine Al receptor)

RN 53296-10-9 CAPLUS

CN Adenosine, 2-(phenylamino) - (CA INDEX NAME)

Absolute stereochemistry.

OSC.G 25 THERE ARE 25 CAPLUS RECORDS THAT CITE THIS RECORD (25 CITINGS)
RE.CNT 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 63 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN T.6 AN 1998:493732 CAPLUS 129:131238 DN OREF 129:26693a,26696a Screening method for agents for treatment of eye disorders ТΤ ΙN Trier, Klaus Aps, Klaus Trier, Den. PASO PCT Int. Appl., 100 pp. CODEN: PIXXD2 DT Patent LΑ English FAN.CNT 1

| | | CENT : | | | | | | DATE | | | APPL | | | | | | ATE | |
|------|--|---|--|---------------------------------|---------------------------------|------------------------------------|---------------------------------|---|--|--------------------------|----------------------|-------------------|----------------------|-------------------|--------------------------|-------------------|---|-------------------|
| ΡI | WO | 9830
9830 | 900 | | | A2 | | 1998
1998 | | | | | | | | | 9980: | |
| | | | DK,
KP,
NO,
UA,
GH, | EE,
KR,
NZ,
UG,
GM, | ES,
KZ,
PL,
US,
KE, | FI,
LC,
PT,
UZ,
LS, | GB,
LK,
RO,
VN,
MW, | BA,
GE,
LR,
RU,
YU,
SD,
LU, | GH,
LS,
SD,
ZW
SZ, | GM,
LT,
SE,
UG, | GW,
LU,
SG, | HU,
LV,
SI, | ID,
MD,
SK, | IL,
MG,
SL, | IS,
MK,
TJ,
DE, | JP,
MN,
TM, | KE,
MW,
TR, | KG,
MX,
TT, |
| PRAI | CA
AU
IN
US
US
DK
DK
DK | 2276.
2276.
9853
1998.
6710
2004
1997.
1997. | 287
287
121
CA00
051
0013
-9
-823 | 024
609
3 | | A1
C
A
A
B1
A1
A | | 2007 | 0716
1030
0803
1111
0323
0122
0106
0707
1201 | | AU 1
IN 1
US 1 | 998
998
999 | 5312
CA24
3411 | 1
69 | | 1
1
1 | 9980:
9980:
9980:
9990:
0030: | 105
106
706 |

US 1999-341169 A3 19990706

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

MARPAT 129:131238 OS

A method is provided for identification of substances which are applicable for treatment or prevention of an insufficient longitudinal growth of the eye (hypermetropia) or for treatment or prevention of an excessive longitudinal growth of the eye (myopia); substances identified by the method for treating or preventing conditions related to the longitudinal growth of the eye; substances and mixts. of substances for the preparation of a pharmaceutical composition for the treatment or prevention of abnormal growth of the axial length of the eye. The identification involves measuring the effect of the substances on the retinal pigment epithelium of the eye, e.g. by detecting the metabolic effect of the substance on the retinal epithelium, the effect on the standing potential or the effect on the proteoglycans of the scleral tissue of the eye, by way of EOG examination, by way on the size of the so-called c-wave in ERG-recordings, or by the state of the Ca2+-channels or on the [3H]-ryanodine receptors of the retinal pigment epithelium.

TT 53296-10-9, CV 1808

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES

(screening method for agents for treatment of eye disorders)

RN

53296-10-9 CAPLUS Adenosine, 2-(phenylamino)- (CA INDEX NAME) CN

Absolute stereochemistry.

OSC.G THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (2 CITINGS)

THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD RE.CNT

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 64 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN

1998:441960 CAPLUS AN

DN 129:109311

OREF 129:22461a,22464a

- Preparation of nucleoside uronamides as A3 adenosine receptor agonists ТΤ
- Jacobson, Kenneth A.; Gallo-Rodriguez, Carola; Van Galen, Philip J. M.; Von Lubitz, Dag K. J. E.; Jeong, Heaok Kim

United States Dept. of Health and Human Services, USA PA

U.S., 54 pp., Cont.-in-part of U.S. Ser. No. 163,324, abandoned. CODEN: USXXAM SO

Patent DT

T.A English

| FAN. | CNT 3 | | | | |
|-------------------|----------------|---------------|----------|--------------------------|----------|
| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
| | | | | | |
| PI | US 5773423 | A | 19980630 | US 1994-274628 | 19940713 |
| | US 5688774 | A | 19971118 | US 1995-396111 | 19950228 |
| PRAI | US 1993-91109 | В2 | 19930713 | | |
| | US 1993-163324 | В2 | 19931206 | | |
| | US 1994-274628 | A2 | 19940713 | | |
| Th. Ch. Ch. TT. 4 | | ~ ~ ~ ~ ~ ~ ~ | | THE TOTAL DECEMBER TOTAL | |

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

MARPAT 129:109311

GΙ

AB The present invention provides N6-benzyladenosine-5'-N-uronamide and related substituted compds. I (R1 = amide; R2 = halo, amino, alkenyl, alkynyl, thio, alkylthio; R3 = S-1-phenylethyl, Bn, phenylethyl), particularly those containing substituents on the benzyl and/or uronamide groups, and modified xanthine ribosides, as well as pharmaceutical compns. containing such compds. The present invention also provides a method of selectively activating an A3 adenosine receptor in a mammal, which method comprises acutely or chronically administering to a mammal in need of selective activation of its A3 adenosine receptor a therapeutically effective amount of a compound which binds with the A3 receptor so as to stimulate an A3 receptor-dependent response. Thus, N6-(3-iodobenzyl)adenosine was prepared tested for its affinity in binding at rat brain A1, A2, A3 adenosine receptors (Ki = 9.5-220.0 nM).

53296-10-9P RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of nucleoside uronamides as A3 adenosine receptor agonists)

RN 53296-10-9 CAPLUS

Adenosine, 2-(phenylamino) - (CA INDEX NAME)

Absolute stereochemistry.

OSC.G THERE ARE 11 CAPLUS RECORDS THAT CITE THIS RECORD (11 CITINGS) RE.CNT 35 THERE ARE 35 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

1.6 ANSWER 65 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN

1998:413029 CAPLUS AN

129:145069 DM

OREF 129:29475a,29478a

- Pharmacological classification of adenosine receptors in the sinoatrial TΙ and atrioventricular nodes of the guinea pig
- Meester, B. J.; Shankley, N. P.; Welsh, N. J.; Wood, J.; Meijler, F. L.; ΑU Black, J. W.
- Rayne Institute, Analytical Pharmacology, King's College School of Medicine and Dentistry, London, SE5 9NU, UK
- British Journal of Pharmacology (1998), 124(4), 685-692 SO CODEN: BJPCBM; ISSN: 0007-1188

PB Stockton Press

DT Journal

LA English

The effects of seven agonist and three antagonist adenosine receptor

ligands were compared on the guinea pig sinoatrial (SA) node (isolated right atrium) and atrioventricular (AV) node (perfused whole heart). Single agonist concentration-effect curves were obtained to (R-PIA), N6-cyclohexyladenosine, 2-chloroadenosine, S(+)-N6-(2-phenylisopropyl) adenosine (L-PIA), 2-phenylaminoadenosine (CV 1808) and N6-aminoadenosine. Adenosine and/or NECA curves were obtained in the absence and presence of the antagonists 8-cyclopentyl-1,3-dipropylxanthine, CGS 15943 and N-0861. A formal comparison of the agonist and antagonist potency data was made by fitting the data to a straight line using a least squares procedure based on principal components anal. to account for the variance on both axes. antagonist affinity ests. made on the two assays did not deviate significantly from the line of identity. The agonist p[A]50 data obtained on the two assays did not deviate from the line of identity, indicating that there were no significant differences in potencies between the two assays. The p[A]50 ratio of R-PIA and S-PIA was 1.24 in the SA node and 1.36 in the AV node, indicating no difference in the stereoselectivity of the PIA isomers between the two tissues. The agonist potency and antagonist affinity data obtained are consistent with previous findings showing that the AV and SA node data are pharmacol. indistinguishable and belong to the adenosine Al-receptor class. No evidence for the reported A3-receptor was found.

IT 53296-10-9, 2-Phenylaminoadenosine

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

(adenosine receptor pharmacol. classification in sinoatrial and atrioventricular nodes of guinea pigs)

RN 53296-10-9 CAPLUS

CN Adenosine, 2-(phenylamino) - (CA INDEX NAME)

- OSC.G 13 THERE ARE 13 CAPLUS RECORDS THAT CITE THIS RECORD (13 CITINGS)
- RE.CNT 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT
- L6 ANSWER 66 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN
- AN 1998:329095 CAPLUS
- DN 129:75990
- OREF 129:15525a,15528a
- TI A functional screening of adenosine analogs at the adenosine A2B receptor: a search for potent agonists
- AU De Zwart, Maarten; Link, Regina; Von Frijtag Drabbe Kunzel, Jacobien K.; Cristalli, Gloria; Jacobson, Kenneth A.; Townsend-Nicholson, Andrea; Ijzerman, Ad P.
- CS Division of Medicinal Chemistry, Leiden/Amsterdam Center for Drug Research, Leiden University, Leiden, 2300 RA, Neth.
- SO Nucleosides & Nucleotides (1998), 17(6), 969-985 CODEN: NUNUD5; ISSN: 0732-8311
- PB Marcel Dekker, Inc.
- DT Journal
- LA English
- AB Various adenosine analogs were tested at the adenosine A2B receptor. Agonist potencies were determined by measuring the cAMP production in Chinese Hamster Ovary cells expressing human A2B receptors. 5'-N-Substituted carboxamidoadenosines were most potent. 5'-N-Ethylcarboxamidoadenosine (NECA) was most active with an EC50 value of 3.1 µM. Other ribose modified derivs. displayed low to negligible activity. Potency was reduced by substitution on the exocyclic amino function (N6) of the purine ring system. The most active N6-substituted derivative N6-methyl-NECA was 5

ΤТ

CN

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fold less potent than NECA. C8- and most C2-substituted analogs were virtually inactive. 1-Deaza-analogs had a reduced potency, 3- and 7-deazaanalogues were not active.
53296-10-9
RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
   (functional screening of adenosine analogs at adenosine A2B receptor: search for potent agonists)
53296-10-9 CAPLUS
Adenosine, 2-(phenylamino)- (CA INDEX NAME)
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Absolute stereochemistry.

OSC.G 45 THERE ARE 45 CAPLUS RECORDS THAT CITE THIS RECORD (46 CITINGS)
RE.CNT 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD

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ALL CITATIONS AVAILABLE IN THE RE FORMAT
     ANSWER 67 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN
T.6
     1998:193066 CAPLUS
AN
DN
     128:257648
OREF 128:51007a,51010a
     Synthetic nucleosides and nucleotides. 40. Selective inhibition of
TΤ
     \bar{\text{eukaryotic}} DNA polymerase \alpha by
     9-(\beta-D-arabinofuranosyl)-2-(p-n-butylanilino) adenine 5'-triphosphate
     (BuAaraATP) and its 2'-up azido analog: synthesis and enzymic evaluations
     Tomikawa, Aki; Sato-Kiyotaki, Kunie; Ohtsuki, Chizuru; Hirai, Toshiaki;
ΑU
     Yamaguchi, Toyofumi; Kawaguchi, Takeo; Yoshida, Shonen; Saneyoshi, Mineo
CS
     Dep. Biol. Sci., Teikyo Univ. Sci. Technol., Yamanashi, 409-01, Japan
SO
     Nucleosides & Nucleotides (1998), 17(1-3), 487-501
     CODEN: NUNUD5; ISSN: 0732-8311
     Marcel Dekker, Inc.
PB
DT
     Journal
LA
     English
     CASREACT 128:257648
OS
     Starting from 2',3',5'-tri-O-acetyl-2-iodoadenosine,
AB
     9-(\beta-D-arabinofuranosyl)-2-(p-n-butylanilino) adenine and its
     2'(S)-azido counterparts were synthesized in seven steps. These exhibited
     only moderate growth-inhibitory effects against mouse leukemic P388 cells
     (IC50 = 13-24 \muM), although 5'-triphosphate derivs. showed strong and
     selective inhibitory action on calf thymus DNA polymerase \alpha, but not
     on \beta- and \epsilon-polymerases from eukaryotes.
     169687-98-3P
     RL: BAC (Biological activity or effector, except adverse); BSU (Biological
     study, unclassified); RCT (Reactant); SPN (Synthetic preparation); BIOL
     (Biological study); PREP (Preparation); RACT (Reactant or reagent)
        (preparation and enzymic evaluations of
        (arabinofuranosyl)(p-butylanilino)adenine triphosphate and its azido
        analog)
     169687-98-3
                 CAPLUS
     9H-Purine-2,6-diamine, 9-\beta-D-arabinofuranosyl-N2-(4-butylphenyl)-
     (CA INDEX NAME)
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169687-92-7P ΙT

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and enzymic evaluations of

(arabinofuranosyl) (p-butylanilino) adenine triphosphate and its azido analog)

169687-92-7 CAPLUS RN

Adenosine, 2-[(4-butylphenyl)amino]- (9CI) (CA INDEX NAME) CN

Absolute stereochemistry.

THERE ARE 23 CAPLUS RECORDS THAT CITE THIS RECORD (23 CITINGS) OSC.G 23 RE.CNT 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 68 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN T.6

AN 1997:576691 CAPLUS

DN 127:243272

OREF 127:47336a

Method and composition using purines and other compounds for inhibiting TΙ cellular irreversible changes due to stress

IN Miller, Guy; Lou, Lillian; Nakamura, John

Galileo Laboratories, Inc., USA PΑ

PCT Int. Appl., 31 pp. SO

CODEN: PIXXD2 DT Patent

LA English

| FAN.CNT 1 | | | | | | | | | | | | | | | | | |
|-----------|----------|----------|------|-------|------|---------|--------|-------|-----|----------|-------|----------|---------|-----|-----|----------|---------|
| | PATENT | NO. | | | KIN | D | DATE | | | APPI | ICAT | ION : | NO. | | D. | ATE | |
| ΡI | WO 973 |
)713 | | | A1 | | 1997 | 0828 | |
Wo 1 | .997- |
US29 |
45 | | 1 |
9970 |
220 |
| | W: | AL, | AM, | AT, | AU, | ΑZ, | BA, | BB, | BG, | BR, | BY, | CA, | CH, | CN, | CU, | CZ, | DE, |
| | | DK, | EE, | ES, | FΙ, | GB, | GE, | HU, | IL, | IS, | JP, | KE, | KG, | KP, | KR, | KZ, | LC, |
| | | LK, | LR, | LS, | LT, | LU, | LV, | MD, | MG, | MK, | MN, | MW, | MX, | NO, | NZ, | PL, | PT, |
| | | RO, | RU, | SD, | SE, | SG, | SI, | SK, | ΤJ, | TM, | TR, | TT, | UA, | UG, | UZ, | VN | |
| | RW | KE, | LS, | MW, | SD, | SZ, | UG, | AT, | BE, | CH, | DE, | DK, | ES, | FI, | FR, | GB, | GR, |
| | | IE, | IT, | LU, | MC, | NL, | PT, | SE, | BF, | ВJ, | CF, | CG, | CI, | CM, | GA, | GN, | ML, |
| | | MR, | NE, | SN, | TD, | TG | | | | | | | | | | | |
| | US 5801 | L159 | | | Α | | 1998 | 0901 | | US 1 | 996- | 6070: | 22 | | 1 | 9960 | 223 |
| | CA 224 | 7461 | | | A1 | | 1997 | 0828 | | CA 1 | 997- | 2247 | 461 | | 1 | 9970 | 220 |
| | AU 9719 | 9749 | | | Α | | 1997 | 0910 | | AU 1 | 997- | 1974 | 9 | | 1 | 9970 | 220 |
| | EP 935 | 166 | | | A1 | | 1999 | 0818 | | EP 1 | 997- | 9078. | 55 | | 1 | 9970 | 220 |
| | R: | ΑT, | BE, | CH, | DE, | DK, | ES, | FR, | GB, | GR, | ΙT, | LI, | LU, | NL, | SE, | MC, | PT, |
| | | IE, | FΙ | | | | | | | | | | | | | | |
| | JP 2000 | 5068 | 34 | | Τ | | 2000 | 0606 | | JP 1 | 997- | 5304 | 08 | | 1 | 9970 | 220 |
| | NO 9803 | 3823 | | | Α | | 1998 | 1001 | | NO 1 | 998- | 3823 | | | 1 | 9980 | 820 |
| PRAI | US 1996 | 5-607 | 022 | | Α | | 1996 | 0223 | | | | | | | | | |
| | WO 199 | 7-US2 | 945 | | W | | 1997 | 0220 | | | | | | | | | |
| 7 CCT | CMMENT I | ITCTA | DV E | OD II | C DA | דוגיויי | מזות י | TT AD | т ч | NT T C | TIC D | TCDI | 7 TZ TZ | | T | | |

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

OS MARPAT 127:243272

Formulations of naturally occurring physiol. acceptable compds. and their derivs. are provided for treatment of cellular stress, particularly hypoxia. By administering the formulations, comprising for the most part purines, sugars, amino acids and physiol. acceptable derivs. thereof, by themselves or in combination with each other and with other compds., particularly electron acceptor compds., the time to irreversible cellular changes, particularly mortality, can be greatly extended.

53296-10-9, 2-Phenylaminoadenosine RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(purines and other compds. for inhibition of cellular irreversible changes due to stress)

RN 53296-10-9 CAPLUS

Adenosine, 2-(phenylamino)- (CA INDEX NAME) CN

Absolute stereochemistry.

THERE ARE 11 CAPLUS RECORDS THAT CITE THIS RECORD (11 CITINGS) OSC.G 11 RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 69 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN 1997:534191 CAPLUS 1.6

AN

127:200473 DN

OREF 127:38779a,38782a

ТΤ Adenosine A3 receptors promote degranulation of rat mast cells both in vitro and in vivo

Reeves, J. J.; Jones, C. A.; Sheehan, M. J.; Vardey, C. J.; Whelan, C. J. ΑIJ

Medicines Research Center, Glaxo Wellcome Research Development Ltd., CS Stevenage, SG1 2NY, UK

SO Inflammation Research (1997), 46(5), 180-184 CODEN: INREFB; ISSN: 1023-3830

PB Birkhaeuser

DT Journal

LA English

The effects were investigated of adenosine receptor agonists and antagonists on 5-HT release from rat isolated pleural mast cells and on plasma protein extravasation in the skin of conscious rats. In isolated mast cells, each adenosine agonist enhanced DNP-induced 5-HT release, N6-(3-iodobenzyl)-5-(N-methyl-carboxamidoadenosine) (IB-MECA), being the most potent agonist. The adenosine A1/A2 antagonist, 8-phenyltheophylline (8-PT), had no effect on the response to IB-MECA. 3-(4-Amino-iodobenzyl)-8-[4-[[[carboxy]methyl]oxy]phenyl]-1-propylxanthine(I-ABOPX) inhibited (pA2 6.2) the IB-MECA responses. In the skin of conscious rats, intradermal IB-MECA produced a marked blood plasma protein extravasation (PPE) which was mimicked by N6-2-(4-aminophenyl)-ethyladenosine (APNEA). The PPE produced by IB-MECA was not affected by either 8-PT or CGS15943A, but was virtually abolished by cyproheptadine and in rats pre-treated with Compound 48/80. Thus, stimulation of adenosine A3 receptors both enhances degranulation in vitro and directly produces degranulation of rat mast cells in vivo.

53296-10-9, CV-1808

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)

(effect on antigen-induced release of 5-HT from mast cells)

53296-10-9 CAPLUS RN

Adenosine, 2-(phenylamino) - (CA INDEX NAME)

49 THERE ARE 49 CAPLUS RECORDS THAT CITE THIS RECORD (49 CITINGS)

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ANSWER 70 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN
1.6
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AN 1997:478039 CAPLUS

127:171088 DN

OREF 127:32965a,32968a

QSAR analysis of 2-alkyloxy and 2-aralkyloxy adenosine A1- and A2-agonists TΤ

Matova, M.; Nacheva, R.; Boicheva, S. ΑU

CS Department of Chemistry and Biochemistry, Faculty of Medicine, Medical University, Sofia, 1431, Bulg. European Journal of Medicinal Chemistry (1997), 32(6), 505-513

SO CODEN: EJMCA5; ISSN: 0223-5234

PB Elsevier

DT Journal

LΑ English

AB A quant. structure-activity relationship (QSAR) anal. of a series 2-alkyloxy-, 2-aryloxy- and 2-aralkyloxy-adenosines has been performed. Various theor. 3-D electronic and topol. descriptors encoding their mol. structure were estimated and the structure-activity correlations were evaluated. A cluster anal. of the affinity consts. of the compds. was carried out, and according to the obtained results the QSAR anal. was developed at two levels. The results of this investigation allowed a distinction to be made between A1- and A2-receptor selectivity of the compds. due to structural reasons. It was shown that small and less lipophilic substituents may enhance the A1-receptor selectivity of the compds. Hydrophobic and bulky cycloalkyl substituents greatly enhance A2-receptor selectivity. The more lipophilic and rigid aromatic substituents increase the affinity, but decrease selectivity at both receptors. Adenosine agonist activity is also determined by the electron-donating properties of the purine ring and of certain atoms in this aromatic system: the N6 atom in A1-selective ligands and the N1, N7, C2, C5, C6, C8 atoms in A2-selective ligands appear to constitute part of the pharmacophore of the mols.

ΙT 50257-82-4 50257-84-6 50257-85-7 50257-95-9 131865-78-6 50257-89-1 131865-81-1 131865-82-2 131933-15-8 131933-17-0 131933-20-5 131933-26-1 131933-27-2 131973-26-7 137817-83-5 145747-87-1 137817-84-6 194154-31-9 194154-32-0

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study) (QSAR anal. of 2-alkyloxy and 2-aralkyloxy adenosine A1- and

A2-agonists)

50257-82-4 CAPLUS Adenosine, 2-phenoxy- (CA INDEX NAME) CN

RN 50257-84-6 CAPLUS CN Adenosine, 2-butoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 50257-85-7 CAPLUS

CN Adenosine, 2-(pentyloxy)- (CA INDEX NAME)

Absolute stereochemistry.

RN 50257-89-1 CAPLUS

CN Adenosine, 2-(2-hydroxyethoxy)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 50257-95-9 CAPLUS

CN Adenosine, 2-(hexyloxy)- (CA INDEX NAME)

Absolute stereochemistry.

Me
$$(CH_2)_5$$
 OH NH2 NH2 OH

RN 131865-78-6 CAPLUS

CN Adenosine, 2-(phenylmethoxy)- (CA INDEX NAME)

131865-81-1 CAPLUS RN

Adenosine, 2-(4-phenylbutoxy)- (CA INDEX NAME) CN

Absolute stereochemistry.

131865-82-2 CAPLUS

Adenosine, 2-[(5-phenylpentyl)oxy]- (CA INDEX NAME) CN

Absolute stereochemistry.

RN

131933-15-8 CAPLUS Adenosine, 2-(3-methylbutoxy)- (CA INDEX NAME) ${\tt CN}$

Absolute stereochemistry.

131933-17-0 CAPLUS RN

Adenosine, 2-(cyclohexylmethoxy) - (9CI) (CA INDEX NAME)

131933-20-5 CAPLUS RN

Adenosine, 2-(4-cyclohexylbutoxy)- (9CI) (CA INDEX NAME) CN

Absolute stereochemistry.

131933-26-1 CAPLUS

Adenosine, 2-(2-ethylbutoxy)- (9CI) (CA INDEX NAME) CN

Absolute stereochemistry.

RN

131933-27-2 CAPLUS Adenosine, 2-[(3-ethylpentyl)oxy]- (9CI) (CA INDEX NAME) ${\tt CN}$

Absolute stereochemistry.

131973-26-7 CAPLUS RN

Adenosine, 2-[(4-methylpentyl)oxy]- (9CI) (CA INDEX NAME)

137817-83-5 CAPLUS RN Adenosine, 2-[(2R)-2-phenylbutoxy]- (9CI) (CA INDEX NAME) CN

Absolute stereochemistry.

137817-84-6 CAPLUS

Adenosine, 2-[(2S)-2-phenylbutoxy]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN

145747-87-1 CAPLUS Adenosine, 2-[(3S)-3-phenylbutoxy]- (CA INDEX NAME)

Absolute stereochemistry.

194154-31-9 CAPLUS RN

Adenosine, 2-[[(3S)-3,7-dimethyl-6-octenyl]oxy]- (9CI) (CA INDEX NAME)

RN 194154-32-0 CAPLUS

Adenosine, 2-[[(3R)-3,7-dimethyl-6-octenyl]oxy]- (9CI) (CA INDEX NAME) CN

Absolute stereochemistry.

THERE ARE 7 CAPLUS RECORDS THAT CITE THIS RECORD (7 CITINGS) OSC.G THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD RE.CNT 34 ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 71 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN L6

1997:366482 CAPLUS ΑN

127:76385 DN

OREF 127:14461a,14464a

Characterization of human A2A adenosine receptors with the antagonist TΙ radioligand [3H]-SCH 58261

ΑIJ Dionisotti, Silvio; Ongini, Ennio; Zocchi, Cristina; Kull, Bjorn; Arslan, Giulia; Fredholm, Bertil B.

CS Schering-Plough Research Institute, Milan, I-20132, Italy

British Journal of Pharmacology (1997), 121(3), 353-360 SO

CODEN: BJPCBM; ISSN: 0007-1188

PB Stockton

DT Journal

LA

English The authors have characterized the binding of the new potent and selective AB antagonist radioligand [3H]-5-amino-7-(2-phenylethyl)-2-(2-furyl)pyrazolo[4,3-e]-1,2,4-triazolo[1,5-c]pyrimidine, [3H]-SCH 58261, to human cloned A2A adenosine receptors. In Chinese hamster ovary (CHO) cells transfected with the human cloned A2A receptor, [3H]-SCH 58261 specific binding (about 70%) was rapid, saturable, reversible and proportional to protein concentration The kinetic KD value was 0.75 nM. Saturation expts. showed that [3H]-SCH 58261 labeled a single class of recognition sites with high affinity (KD = 2.3 nM) and limited capacity (apparent Bmax = 526 fmol mg-1protein). Competition expts. revealed that binding of 0.5 nM [3H]-SCH 58261 was displaced by adenosine receptor agonists with the following order of potency: 2-hexynyl-5'-N-ethylcarboxamidoadenosine (2HE-NECA) > 5'-N-ethylcarboxamidoadenosine (NECA) = 2-phenylaminoadenosine (CV 1808) > 2-[4-(2-carboxyethyl)-phenethylamino]-5'-N-ethylcarboxamidoadenosine (CGS 21680) > R-N6-phenylisopropyladenosine (R-PIA) ≥ N6-cyclohexyladenosine (CHA) >S-N6-phenylisopropyladenosine (S-PIA). Adenosine receptor antagonists inhibited [3H]-SCH 58261 binding with the following order: 5-amino-9-chloro-2-(2-furyl)-[1,2,4]-triazolo[1,5-c] quinazoline (CGS 15943) > SCH 58261 > xanthine amine congener (XAC) > (E, 18%-Z, 82%) 7-methyl-8-(3, 4-dimethoxystyryl)-1, 3-dipropylxanthine (KF) 17837S) > 8-cyclopentyl-1,3-dipropylxanthine (DPCPX) > theophylline. Affinity values and rank order of potency of both receptor agonists and antagonists were similar to those previously obtained in human platelet and rat striatal membranes, except for CV 1808 which was more potent than CGS 21680. SCH 58261 was a competitive antagonist at inhibiting NECA-induced cAMP accumulation in CHO cells transfected with human A2A

receptors. Good agreement was found between binding and functional data. Thus, the new antagonist radioligand is preferable to the receptor agonist radioligand [3H]-CGS 21680 hitherto used to examine the pharmacol. of human cloned A2A adenosine receptors.

53296-10-9, 2-Phenylaminoadenosine

RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

(characterization of human A2A adenosine receptors with antagonist radioligand [3H]-SCH 58261)

53296-10-9 CAPLUS RN

Adenosine, 2-(phenylamino)- (CA INDEX NAME) CN

Absolute stereochemistry.

THERE ARE 36 CAPLUS RECORDS THAT CITE THIS RECORD (36 CITINGS) OSC.G 36 RE.CNT 36 THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 72 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN

1997:293390 CAPLUS AN

127:1181 DN

OREF 127:287a,290a

Binding of [1251]AB-MECA to the human cloned adenosine A3 receptor using TT the Semliki Forest virus expression system

ΑU Patel, M.; Harris, C.; Lundstrom, K.

Department of Receptor Pharmacology, Glaxo-Wellcome Medicines Research CS Centre, Herts, UK

SO Drug Development Research (1997), 40(1), 35-40 CODEN: DDREDK; ISSN: 0272-4391

PB Wiley-Liss

Journal DT

LA

English The cDNA for the human adenosine A3 receptor was introduced into the pSFV1 vector, and the in vitro transcribed RNA was electroporated into baby hamster kidney (BHK) cells with pSFV-Helper RNA. This protocol resulted in packaging of a high titer Semliki Forest Virus (SFV)-A3 virus stock. Infection of confluent Chinese hamster ovary (CHO) cells with the SFV-A3 virus stock resulted in an expression of human adenosine A3 receptors that was twofold more than that obtained with usual transfection methods (as determined by radioligand binding studies). The binding of [1251]N6-(4-amino-3-iodobenzyl)adenosine-5'-N-methyl-uronamide ([125I]AB-MECA) was specific and saturable (pKd = 8.8; Bmax = 0.5 pmol mg-1 protein). Adenosine receptor ligands were evaluated for their binding affinities at the human cloned adenosine A3 receptor. The rank order of affinities of the ligands were: CGS 15943 > IB-MECA > APNEA > ligands with selectivity for adenosine A1, A2A, and A2B receptors. However, the Al selective ligand, GR79236, had little or no affinity for the human adenosine A3 receptor. In conclusion, the SFV expression system can be used to express the human cloned adenosine A3 receptor at high levels in CHO cells. This study has examined the binding affinities at the human cloned adenosine A3 receptor, of an extensive range of ligands for the adenosine family of receptors. Furthermore, CGS 15943 has been identified as a ligand with high affinity at the human cloned adenosine A3 receptor. ΤТ

53296-10-9, CV 1808

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

(binding of [1251]AB-MECA to human cloned adenosine A3 receptor using Semliki Forest virus expression system)

RN 53296-10-9 CAPLUS

CNAdenosine, 2-(phenylamino) - (CA INDEX NAME)

Absolute stereochemistry.

THERE ARE 9 CAPLUS RECORDS THAT CITE THIS RECORD (10 CITINGS) OSC.G 9 RE.CNT 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 73 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN

AN 1997:107356 CAPLUS

126:113152 DN

OREF 126:21729a,21732a

A method for measuring the adenosine A2a receptor binding activity of compounds of pharmacological interest by the use of the tritiated ligand [3H]-SCH 58261

Zocchi, Cristina; Baraldi, Pier Giovanni; Cacciari, Barbara; Dionisotti, ΤN Silvio; Ongini, Ennio

Schering-Plough S.P.A., Italy; Zocchi, Cristina; Baraldi, Pier Giovanni; Cacciari, Barbara; Dionisotti, Silvio; Ongini, Ennio PA

PCT Int. Appl., 13 pp. SO

CODEN: PIXXD2

DT Patent

English LΑ

| FAN. | CNT 1 | | | | | | | | | | | | | | | | |
|------|---------|---------------|------|------|--------|------|-------|----------|------|----------|-----------|-------|--------|-------|-------|-----------|---------|
| | PATENT | NO. | | | KIN | D | DATE | | | APPL | ICAT | ION : | NO. | | D. | ATE | |
| PI | WO 9638 |
3728 | | |
A1 | _ | 1996 |
1205 | |
WO 1 |
996-: | EP23 |
48 | | 1 |
9960' |
601 |
| | W: | AL, | AM, | ΑT, | ΑU, | AZ, | BB, | BG, | BR, | BY, | CA, | CH, | CN, | CZ, | DE, | DK, | EE, |
| | | ES, | FΙ, | GB, | GE, | HU, | IL, | IS, | JP, | KE, | KG, | KP, | KR, | ΚZ, | LK, | LR, | LS, |
| | | LΤ, | LU, | LV, | MD, | MG, | MK, | MN, | MW, | MX, | NO, | NΖ, | PL, | PT, | RO, | RU, | SD, |
| | | SE, | SG | | | | | | | | | | | | | | |
| | RW | KE, | LS, | MW, | SD, | SZ, | UG, | ΑT, | BE, | CH, | DE, | DK, | ES, | FI, | FR, | GB, | GR, |
| | | ΙE, | ΙT, | LU, | MC, | NL, | PT, | SE, | BF, | ВJ, | CF, | CG, | CI, | CM, | GA | | |
| | AU 9661 | L238 | | | Α | | 1996 | 1218 | | AU 1 | 996- | 6123 | 8 | | 1 | 9960 | 601 |
| PRAI | IT 1995 | 5-MI1 | 155 | | Α | | 1995 | 0602 | | | | | | | | | |
| | WO 1996 | 5-EP2 | 348 | | W | | 1996 | 0601 | | | | | | | | | |
| AB | The inv | <i>r</i> enti | on r | elat | es t | o a | meth | od f | or e | valu | atin | g th | e ad | enos. | ine . | A2a | |
| | recepto | or bi | ndin | g af | fini | ty o | of co | mpds | . of | pha | rmac | ol. | inte | rest | . M | oreo | ver, |
| | the inv | zenti | on r | elat | es t | o re | eagen | ts a | nd a | kit | par | ticu. | larl | v su | itab | le f | or th |

above mentioned purpose. Tritiation of SCH 58261 is described, as are results of binding competition expts.

53296-10-9, 2-Phenylaminoadenosine

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

(tritiated SCH 58261 preparation for adenosine A2a receptor binding activity determination for compds. of pharmacol. interest)

53296-10-9 CAPLUS RN

Adenosine, 2-(phenylamino) - (CA INDEX NAME)

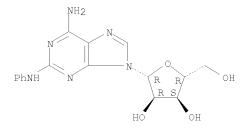
Absolute stereochemistry.

McIntosh

OSC.G 3 THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD (3 CITINGS)

- L6 ANSWER 74 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN
- AN 1996:760265 CAPLUS
- DN 126:54832
- OREF 126:10679a,10682a
- TI Comparison of nucleoside transport binding sites in rabbit iris-ciliary body and cultured rabbit nonpigmented ciliary epithelial cells
- AU Williams, Evan F.; Chu, Teh-Ching; Socci, Robin R.; Brown, Lester G.; Walker, Cassandra E.; Manor, Errol L.
- CS Dept. of Pharmacology and Toxicology, Morehouse School of Medicine, Atlanta, GA, USA
- SO Journal of Ocular Pharmacology and Therapeutics (1996), 12(4), 461-469 CODEN: JOPTFU; ISSN: 1080-7683
- PB Liebert
- DT Journal
- LA English
- The iris-ciliary body (ICB) is a site of action for topically applied antiglaucoma drugs. Moreover, adenosine has been implicated as a modulator of aqueous humor dynamics. The present study compared the binding of a nucleoside transporter probe, [3H]nitrobenzylthioinosine ([3H]NBMPR), by homogenates prepared from rabbit ICB and a cultured rabbit nonpigmented ciliary epithelial cell line (NPE) to determine whether NPE can be used as an exptl. model to study the nucleoside transporter. Linear transformation of the saturation binding data revealed that [3H]NBMPR bound to a homogeneous population of binding sites with similar binding affinities in NPE and ICB (Kd 0.3 and 0.6 nM, resp.). However, the maximal binding capacity in NPC (Bmax 288 fmol/mg protein) was significantly higher than that in ICB (Bmax 154 fmol/mg protein). Selected inhibitors of the nucleoside transport system and structural analogs of adenosine inhibited the binding in both homogenate prepns. with a similar rank order of potency: S-(p-nitrobenzyl)-6-thioinosine > dipyridamole > 2-phenylaminoadenosine > N6-cyclohexyladenosine > R- > S-(+)-N6-(2-phenylisopropyl)adenosine > R- > S-(+)-N6-(2-phenylisoprop2-chloroadenosine > 5'-(N-ethylcarboxamido)adenosine. The results suggest that NPE is a model which could be used for characterizing the nucleoside transporter in ICB and for the screening of nucleoside transport inhibitors as potential antiglaucoma drugs.
- IT 53296-10-9, 2-Phenylaminoadenosine
 - RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
 - (nucleoside transport binding sites in iris-ciliary body and nonpigmented ciliary epithelial cells characterized by use of)
- RN 53296-10-9 CAPLUS
- CN Adenosine, 2-(phenylamino)- (CA INDEX NAME)

Absolute stereochemistry.



OSC.G 3 THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD (3 CITINGS)

- L6 ANSWER 75 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN
- AN 1996:306232 CAPLUS
- DN 125:1181
- OREF 125:267a,270a
- TI Interaction of full and partial agonists of the A1 adenosine receptor with receptor/G protein complexes in rat brain membranes
- AU Lorenzen, Anna; Guerra, Laura; Vogt, Heidrun; Schwabe, Ulrich
- CS Ist. Farmacologia, Univ. Ferrara, Ferrara, I-44100, Italy
- SO Molecular Pharmacology (1996), 49(5), 915-926
- CODEN: MOPMA3; ISSN: 0026-895X
- PB Williams & Wilkins
- DT Journal

LΑ English

Full and partial agonists of the Al adenosine receptor were characterized with respect to their influence on G protein activation and their thermodn. parameters of receptor binding in rat brain membranes. G protein activation was determined through measurement of [35S]quanosine-5'-(γ -thio)-triphosphate ([35S]GTP[S]) binding, and receptor binding was studied under identical conditions through the displacement of [3H]-1,3-dipropyl-8-cyclopentylxanthine ([3H]DPCPX) in equilibrium binding studies. The intrinsic activity in stimulating [358]GTP[S] binding did not correlate with the affinity of the ligands. 5'-Deoxy-5'-methylthioadenosine, 2-phenylaminoadenosine, and 2-chloro-2'-deoxyadenosine were identified as partial A1 agonists in the G protein activation assay. Depending on the temperature, these ligands showed agonistic and antagonistic properties to varying extents. EC50 values for G protein stimulation and KH and KL values of the partial agonists decreased when the incubations were performed at lower temps., indicating a mainly enthalpy-driven process of interaction with the receptor. Thermodn. parameters of receptor binding of the partial agonists resembled the characteristics of the antagonist DPCPX more closely than those of the ${\tt agonist~2-chloro-N6-cyclopentyladenosine.} \quad {\tt In~addition,~partial~agonists}$ detected fewer Al adenosine receptors in the high affinity state binding of [358]GTP[S] is probably the consequence of an impaired ability of the partial agonists to release GDP from the G protein, as was shown by an impaired release of prebound [35S]GDP[S] from the membranes. 53296-10-9, CV 1808

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)

(interaction of full and partial agonists of A1 adenosine receptor with receptor/G protein complexes in rat brain membranes)

53296-10-9 CAPLUS

Adenosine, 2-(phenylamino)- (CA INDEX NAME) CN

Absolute stereochemistry.

THERE ARE 63 CAPLUS RECORDS THAT CITE THIS RECORD (63 CITINGS) OSC.G 63

1.6 ANSWER 76 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN

1996:269910 CAPLUS

124:333784 DN

OREF 124:61713a,61716a

TΙ Pharmacological and biochemical characterization of purified A2a adenosine receptors in human platelet membranes by [3H]-CGS 21680 binding

Varani, Katia; Gessi, Stefania; Dalpiaz, Alessandro; Borea, Pier Andrea Institute of Pharmacology, University of Ferrara, Ferrara, 44100, Italy ΑU

CS SO British Journal of Pharmacology (1996), 117(8), 1693-701

CODEN: BJPCBM; ISSN: 0007-1188

PB Stockton

DT Journal

LA English

The binding properties of human platelet A2a adenosine receptors, assayed with the A2a-selective agonist, [3H]-2-[p-(2-carboxyethyl)-phenethylamino]-5'-N-ethylcarboxamidoadenosine ([3H]-CGS 21680), are masked by anon-receptorial component, the adenotin site. To sep. A2a receptors from adenotin sites, human platelet membranes were solubilized with 1% 3-[(3-cholamidopropyl)dimethylammonio]-1-propane sulfonate (CHAPS). The soluble platelet extract was precipitated with polyethylene glycol (PEG) and the fraction enriched in adenosine receptors was isolated from the precipitate by differential centrifugation. The present paper describes the binding characteristics of the selective A2a agonist, [3H]-CGS 21680, to this purified platelet membrane preparation. In addition, receptor affinity and potency of several adenosine agonists and antagonists were determined in binding and

adenylyl cyclase studies. Saturation expts. revealed a single class of binding site with Kd and Bmax values of 285 nM and 2.07 pmol/mg of protein resp. Adenosine receptor ligands competed for the binding of 50 nM [3H]-CGS 21680 to purified protein, showing a rank order of potency consistent with that typically found for interactions with the A2a adenosine receptors. In the adenylyl cyclase assay the compds. examined exhibited a rank order of potency very close to that observed in binding expts. Thermodn. data indicated that [3H]-CGS 21680 binding to the purified receptor is totally entropy-driven in agreement with results obtained in rat striatal A2a adenosine receptors. It is concluded that in the purified platelet membranes there is a CGS 21680 binding site showing the characteristic properties of the A2a receptor. This makes it possible to use this compound for reliable radioligand binding studies on the A2a adenosine receptor of human platelets.

ΤТ 53296-10-9, CV 1808

RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

(adenosine A2a receptors of human platelet membranes solubilization and characterization)

RN 53296-10-9 CAPLUS

Adenosine, 2-(phenylamino)- (CA INDEX NAME)

Absolute stereochemistry.

OSC.G THERE ARE 44 CAPLUS RECORDS THAT CITE THIS RECORD (44 CITINGS)

ANSWER 77 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN T.6

AN 1996:239903 CAPLUS

124:279179

OREF 124:51395a,51398a

Ribosylpurine derivatives for treatment of cerebrovascular disorders by vascular permeability enhancer inhibition

Nagaoka, Akinobu; Imamoto, Tetsuji; Asano, Tsuneo; Sugiura, Yoshihiro; IN Goto, Giichi

Takeda Chemical Industries, Ltd., Japan PA

Can. Pat. Appl., 52 pp. SO

CODEN: CPXXEB DT Patent

English

LΑ

| FAN.CNT 1 | | | | | | | | | | |
|---|----------------------|--------|--------------|-------------------------|------------|--|--|--|--|--|
| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE | | | | | |
| ΡI | CA 2150780 | A1 | 19951203 | CA 1995-2150780 | 19950601 | | | | | |
| | EP 704215 | A2 | 19960403 | EP 1995-108322 | 19950530 | | | | | |
| | EP 704215 | A3 | 19980401 | | | | | | | |
| | R: AT, BE, CH, | DE, DK | , ES, FR, GB | , GR, IE, IT, LI, LU, 1 | NL, PT, SE | | | | | |
| | JP 08048631 | A | 19960220 | JP 1995-134618 | 19950601 | | | | | |
| | US 5604210 | A | 19970218 | US 1995-456723 | 19950601 | | | | | |
| PRAI | JP 1994-120947 | A | 19940602 | | | | | | | |
| ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT | | | | | | | | | | |
| OS | OS MARPAT 124:279179 | | | | | | | | | |
| GI | | | | | | | | | | |

A composition is disclosed for preventing or treating brain edema, intracranial hemorrhage, and cerebral infarction by inhibiting a vascular permeability enhancer. The composition comprises \hat{I} [A = halo, XR3 (X = 0, S, NH, NHNH; R3 = H, acyl, (substituted) hydrocarbyl, (substituted) aromatic heterocyclyl), Y:R4 (Y = N:, NHN:; R4 = (substituted) divalent hydrocarbyl); R1 = H, halo, (substituted) hydrocarbyl, (substituted) heterocyclyl, ZR5 (Z = S, NH; R5 = H, (substituted) hydrocarbyl, (substituted) aromatic heterocyclyl); R2 = H, halo, (substituted) hydrocarbyl, (substituted) heterocyclyl; B = WR6 (W = CH2, C:O, C:S; R6 = OH, (substituted) alkoxy, acyloxy, alkylsulfinyl, alkylsulfonyl, O-phosphono, amino, or B together with E form cyclic phosphoric ester); D, E = H, (substituted) amino, azido, halo, (protected) OH] or a pharmaceutically acceptable salt thereof. Inhibitory activity of 42 compds. to a vascular permeability enhancer was determined 2',3'-0-(1-ethoxyethylidene) adenosine-5'-(Nethylcarboxyamide) was shown to have efficacy in preventing stroke in an animal model. Tablet and injection formulations of 6-[2-(9H-purin-6-yl)hydrazino]nebularine are included. 53296-10-9 70590-23-7 70590-29-3 71231-81-7 74615-32-0 74615-39-7 75106-29-5 75106-32-0 75106-33-1 102711-94-4 102711-99-9 102712-00-5 169687-92-7 175552-71-3 175552-74-6 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (ribosylpurine derivs. for treatment of cerebrovascular disorders by

Absolute stereochemistry.

RN

CN

53296-10-9 CAPLUS

RN 70590-23-7 CAPLUS CN Adenosine, 2-[(3-methylphenyl)amino]- (9CI) (CA INDEX NAME)

vascular permeability enhancer inhibition)

Adenosine, 2-(phenylamino)- (CA INDEX NAME)

RN 70590-29-3 CAPLUS

CN Adenosine, 2-[(3-chloro-4-methoxyphenyl)amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 71231-81-7 CAPLUS

CN Adenosine, 2-[(4-ethylphenyl)amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 74615-32-0 CAPLUS

CN Adenosine, 2-[[4-(aminocarbonyl)phenyl]amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 74615-39-7 CAPLUS

CN Adenosine, 2-[[4-[(ethylamino)carbonyl]phenyl]amino]- (9CI) (CA INDEX NAME)

RN 75106-29-5 CAPLUS

CN Adenosine, 2-[(4-acetylphenyl)amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 75106-32-0 CAPLUS

CN Adenosine, 2-[(4-acetyl-3-methoxyphenyl)amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 75106-33-1 CAPLUS

CN Adenosine, 2-[(4-acetyl-3-chlorophenyl)amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 102711-94-4 CAPLUS

CN Adenosine, 2-[[4-(4-morpholinylcarbonyl)phenyl]amino]- (9CI) (CA INDEX NAME)

RN 102711-99-9 CAPLUS

CN Adenosine, 2-[(3-aminophenyl)amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 102712-00-5 CAPLUS

CN Adenosine, 2-[[3-(1-oxopropyl)phenyl]amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 169687-92-7 CAPLUS

CN Adenosine, 2-[(4-butylphenyl)amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 175552-71-3 CAPLUS

CN Adenosine, 2-[(4-propylphenyl)amino]- (9CI) (CA INDEX NAME)

175552-74-6 CAPLUS

Adenosine, 2-[[4-(1-methylpropyl)phenyl]amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (2 CITINGS) OSC.G

ANSWER 78 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN L6

1996:187715 CAPLUS AN

124:279743 DN

OREF 124:51535a,51538a

- Functional characterization of adenosine A2 receptors in Jurkat cells and TΙ PC12 cells using adenosine receptor agonists
- van der Ploeg, Ingeborg; Ahlberg, Susanne; Parkinson, Fiona E.; Olsson, Ray A.; Fredholm, Bertil B.
- CS Department Physiology Pharmacology, Karolinska Institute, Stockholm, S-171 77, Swed.
- SO Naunyn-Schmiedeberg's Archives of Pharmacology (1996), 353(3), 250-60 CODEN: NSAPCC; ISSN: 0028-1298
- PB Springer
- DT Journal
- LAEnglish
- The effect of several adenosine analogs on cAMP accumulation was examined in AB the rat pheochromocytoma cell PC12 and in the human T-cell leukemia cell Jurkat, selected as prototypes of cells predominantly expressing adenosine A2A or A2B receptors. Using the reverse transcription-polymerase chain reaction it was, however, demonstrated that the Jurkat cell and the PC12 cell express both A2A and A2B receptor mRNA, albeit in different relative proportions. In PC12 cells, the concentration required for half-maximal response (EC50) for the full agonist NECA was 30 times lower than in Jurkat cells. There was no significant difference in the pA2 for the antagonist CGS 15943 between the two cell types. In the presence of forskolin (1 μM in PC12 cells; 10 μM in Jurkat cells) the EC50 value for NECA was reduced two-to sixfold. Forskolin also increased the maximal cAMP accumulation twofold in PC12 cells and sevenfold in Jurkat cells. A series of 2-substituted adenosine analogs CV 1808, CV 1674, CGS 21680, and four 2-substituted isoguanosines, SHA 40, SHA 91, SHA 118, and SHA 125, all raised cAMP accumulation in PC12 cells, but had minimal or no effect in Jurkat cells. In the PC12 cells the addition of forskolin (1 $\mu M)$ reduced the EC50 by a factor of 2 (CV 1808) to 12 (SHA 125). In Jurkat cells all the analogs gave a significant, but submaximal, cAMP response in the presence of forskolin (10 $\mu\text{M})\text{,}$ but they were essentially inactive in its absence. The results show that a series of 2-substituted adenosine analogs can be used to discriminate between A2A and A2B receptors. The two receptor subtypes appear to coexist, even in clonal cells selected for typical pharmacol. A2 receptor pharmacol. can therefore be complex. 50257-95-9, 2-Hexyloxyadenosine 53296-10-9, CV 1808
- RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BUU (Biological use, unclassified); BIOL (Biological

study); USES (Uses)

(adenosine A2 receptor subtype functional characterization in Jurkat cells and PC12 cells using adenosine receptor agonists)

50257-95-9 CAPLUS RN

CNAdenosine, 2-(hexyloxy)- (CA INDEX NAME)

Absolute stereochemistry.

53296-10-9 CAPLUS

Adenosine, 2-(phenylamino)- (CA INDEX NAME)

Absolute stereochemistry.

THERE ARE 43 CAPLUS RECORDS THAT CITE THIS RECORD (43 CITINGS)

1.6 ANSWER 79 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN

1996:162066 CAPLUS AN

DN 124:221345

OREF 124:40737a,40740a

Pharmacological probes for A1 and A2 adenosine receptors in vivo in feline TΙ pulmonary vascular bed

Neely, Constance Fisher; Matot, Idit ΑU

CS Sch. Med., Univ. Pennsylvania, Philadelphia, PA, 19104, USA

American Journal of Physiology (1996), 270(2, Pt. 2), H610-H619 SO

CODEN: AJPHAP; ISSN: 0002-9513 American Physiological Society

PB DT Journal

LΑ English

AΒ Under conditions of controlled pulmonary blood flow and constant left atrial pressure, adenosine produces dose-dependent, tone-dependent responses in the pulmonary vascular (PV) bed of intact-chest, spontaneously breathing cats. The potency profile for adenosine receptor agonists to produce vasoconstriction at low baseline PV tone is 5'-(N-ethylcarboxamido)adenosine ≥ CGS-21680 ≥ 2-chloroadenosine $(2-CADO) \ge [R]-N6-(2-phenylisopropyl)$ adenosine (R-PIA) \geq N6-cyclopentyladenosine > adenosine >> CV-1808. After an increase in PV tone with the use of an intralobar infusion of the thromboxane mimic U-46619, the potency profile for adenosine receptor agonists to produce vasodilation at elevated PV tone is 2-CADO ≥ $\text{CV-1808} \ge \text{CGS-21680} > \text{F-PIA} \ge \text{adenosine}$. The selective A1 adenosine receptor antagonists xanthine amine congener (XAC) and 8-cyclopentyl-1,3-dipropylxanthine (DP-CPX) significantly antagonize the vasoconstrictor responses of adenosine and R-PIA at low baseline PV tone while having less effect on the vasodilator responses of adenosine, 2-CADO, and R-PIA at elevated PV tone. DPCX antagonizes the vasoconstrictor responses of CGS-21680 at low baseline PV tone. nonselective A1 and A2 adenosine receptor antagonist BWA-1433U significantly antagonizes the vasoconstrictor responses of $\ensuremath{\mathtt{R-PIA}}$ and vasodilator responses of adenosine, 2-CADO, and R-PIA. These data support

that adenosine produces vasoconstriction at low baseline PV tone and vasodilation at elevated PV tone in the feline PV bed by acting on Al and A2 adenosine receptors, resp. Compared with the adenosine receptor agonists tested in this in vivo model, R-PIA and CV-1808 are the most selective adenosine receptor agonists for A1 and A2 adenosine receptors, resp., in the feline PV bed. R-PIA, CV-1808, DPCPX, and XAC may be used in this in vivo model to define the roles of A1 and A2 adenosine receptors in acute lung injury and pathophysiol. changes in the pulmonary vasculature associated with pulmonary hypertension and edema formation in the same animal model.

53296-10-9, CV-1808

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES

(pharmacol. probes for A1 and A2 adenosine receptors in vivo in feline pulmonary vascular bed)
53296-10-9 CAPLUS

RN

Adenosine, 2-(phenylamino) - (CA INDEX NAME) CN

Absolute stereochemistry.

OSC.G THERE ARE 9 CAPLUS RECORDS THAT CITE THIS RECORD (9 CITINGS)

ANSWER 80 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN 1.6

1995:706870 CAPLUS AΝ

DN 123:102310

OREF 123:17911a,17914a

Therapeutic aspects of adenosine in relation to its anti-TNF properties. TΙ Giroud, Jean-Paul; Lian Chen, Yan; Le Vraux, Valerie; Chauvelot-Moachon, ΑIJ

Departement de Pharmacologie, Hopital Cochin, Paris, 75679/14, Fr. CS

Bulletin de l'Academie Nationale de Medecine (Paris) (1995), 179(1), SO 79-101

CODEN: BANMAC; ISSN: 0001-4079

Academie Nationale de Medecine

DT Journal

LA French

Expts. tested the hypothesis that the antiinflammatory properties of AB adenosine occur via a down-regulation of tumor necrosis factor (TNF). Adenosine receptor agonists (ARA) and agents potentiating endogenous adenosine (APA) were evaluated for their effects on TNF production by endotoxin-stimulated human monocytes. Addnl., one of the most potent agonists, (R)-phenylisopropyladenosine (R-PIA), was tested in 2 exptl. models of acute-phase response: endotoxin shock and carrageenan-induced plantar edema. Several ARA and APA inhibited monocyte TNF production in a concentration-dependent manner. R-PIA and other ARA were active at micromolar concns. This property is pharmacol. relevant, since rats receiving a LD of endotoxin were protected by R-PIA, and the endotoxin-induced increase in serum TNF levels was abolished by pretreatment with R-PIA. Inhibitory effects on serum TNF production were obtained with similar concns. of dexamethasone and 100-fold higher concns. of pentoxifylline. R-PIA was also active on carrageenan-induced edema. The antiedema properties of R-PIA were associated with a marked reduction of locally produced TNF and were also observed after the administration of dexamethasone, pentoxifylline and a neutralizing anti-TNF antibody. The results indicate that adenosine is a potent inhibitor of TNF production induced by different stimuli. This property could lead to therapeutic applications in inflammatory diseases and other conditions in which TNF is known to play a pathogenic or aggravating role.

53296-10-9, CV 1808

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)

(pharmacol. effects of adenosine and adenosine agonists in relation to inhibition of tumor necrosis factor production)

RN 53296-10-9 CAPLUS

CN Adenosine, 2-(phenylamino)- (CA INDEX NAME)

Absolute stereochemistry.

3 THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD (3 CITINGS) OSC.G

ANSWER 81 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN

1995:631030 CAPLUS AN

123:286460 DN

OREF 123:51354h,51355a

TΙ Synthesis and biological activities of sugar-modified 2-(p-n-butylanilino)-2'-deoxyadenosine analogs

ΑIJ

Yamaguchi, Toyofumi; Kunie, Sato; Saneyoshi, Mineo Department Biological Sciences, Nishi-Tokyo University, Yamanashi, 409-01, CS Japan

SO Nucleosides & Nucleotides (1995), 14(3-5), 529-32 CODEN: NUNUD5; ISSN: 0732-8311

Ι

PB Dekker

DT Journal

English LΑ

Several sugar-modified 2-(p-n-butylanilino)-2'-deoxyadenosine analogs including arabino and <math>2'(R)-azido-2'-deoxy analogs I (R = H, OH, N3, R1 = H, OH, N3, R1)H) and their 5'-triphosphates were synthesized. These nucleosides thus obtained exhibited moderate cytotoxicity against P-388 leukemic cells in culture (IC50 = 13-24 $\mu\text{M})$. In contrast to above results, the 5'-triphosphates have been shown to exert strong and selective inhibitory effects on mammalian DNA polymerase α (Ki = 0.02-0.04 μ M).

169687-98-3P RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent) (synthesis and antitumor and antiviral activities of anilinodeoxyadenosines)

169687-98-3 CAPLUS

9H-Purine-2,6-diamine, 9- β -D-arabinofuranosyl-N2-(4-butylphenyl)-(CA INDEX NAME)

Absolute stereochemistry.

ΤТ 169687-92-7P

> RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(synthesis and antitumor and antiviral activities of anilinodeoxyadenosines)

169687-92-7 CAPLUS RN

Adenosine, 2-[(4-butylphenyl)amino]- (9CI) (CA INDEX NAME) CN

Absolute stereochemistry.

OSC.G THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (2 CITINGS)

ANSWER 82 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN 1995:590191 CAPLUS Ι6

ΑN

DN 123:52110

OREF 123:9283a,9286a

Structure-activity relationship for the binding of nucleoside ligands to TΙ adenosine kinase from Toxoplasma gondii

Iltzsch, Max H.; Uber, Sheri S.; Tankersley, Kevin O.; el Kouni, Mahmoud ΑU

Dept. Biol. Sci., Univ. Cincinnati, Cincinnati, OH, 45221, USA Biochemical Pharmacology (1995), 49(10), 1501-12 CS

SO CODEN: BCPCA6; ISSN: 0006-2952

PB Elsevier

DT Journal

T.A

English AB One hundred and twenty-eight purine nucleoside analogs were evaluated as ligands of Toxoplasma gondii adenosine kinase (EC 2.7.1.20) by examining their ability to inhibit this enzyme in vitro. Inhibition was quantified by determining apparent Ki (appKi) values for those compds. that inhibited this enzyme by greater than 10% at a concentration of 1 mM. Two compds., N6-(p-methoxybenzoyl)adenosine and 7-iodo-7-deazaadenosine (iodotubercidin), were found to bind to the enzyme (appKi = 3.9 and 1.6 $\mu\text{M}\text{,}$ resp.) better than adenosine. On the basis of these data, a structure-activity relationship for the binding of ligands to T. gondii adenosine kinase was formulated using adenosine as a reference compound. It was concluded that the following structures features of purine nucleoside analogs are required or strongly preferred for binding: (1) "pyridine-type" endocyclic nitrogens at the 1- and 3-positions; (2) an exocyclic hydrogen at the 2-position; (3) 6-position exocyclic substituents in the lactim tautomeric form; (4) a "pyridine-type" endocyclic nitrogen at the 7-position or hydrophobic exocyclic substituents attached to an endocyclic carbon at the 7-position; (5) an endocyclic methine or "pyridine-type" nitrogen at the 8-position; (6) an endocyclic nitrogen at the 9-position; (7) a pentose or "pentose-like" (e.g. hydroxylated cyclopentene) moiety attached to the 9-position nitrogen; (8) hydroxyl groups at the 2'- and 3'-positions in a ribose

configuration; (9) a hydroxymethyl or Me (i.e. 5'-deoxy) group at the 5'-position; (10) a β -D-nucleoside configuration; and (11) an anti conformation around the N-glycosidic bond. In addition, there appears to be a "pocket" in the catalytic site of T. gondii adenosine kinase, adjacent to the 6-position of adenosine, that can accommodate large (preferably unsatd. or aromatic) substituents (e.g. phenyl). These findings provide the basis for the rational design of addnl. ligands of T. gondii adenosine kinase.

53296-10-9, 2-Phenylaminoadenosine

RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study); PROC (Process)

(structure-activity relationship for the binding of nucleoside ligands to adenosine kinase from Toxoplasma gondii)

RN 53296-10-9 CAPLUS

Adenosine, 2-(phenylamino)- (CA INDEX NAME) CN

Absolute stereochemistry.

THERE ARE 39 CAPLUS RECORDS THAT CITE THIS RECORD (39 CITINGS) OSC.G 39

ANSWER 83 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN

1995:405318 CAPLUS ΑN

122:255527 DN

OREF 122:46321a,46324a

A theoretical structure-activity relationship study of 2-alkoxy-adenosines: selective agonists at the coronary artery A2-adenosine receptor

ΑU Ojha, T. N.; SIngh, P.; Tiwari, Susheela; Sharma, R. C.

Department of Chemistry, SK Government College, Sikar, 332 001, India CS

SO Indian Journal of Biochemistry & Biophysics (1995), 32(1), 60-2

CODEN: IJBBBQ; ISSN: 0301-1208

PB Publications & Information Directorate, CSIR

DT Journal English LA

A theor. explanation of the agonist actions of several adenosine derivs., AB elicited from its binding to the two subtypes of discrete membrane-bound adenosine receptors, AlAR and A2AR, has been provided on the basis of derived statistical correlations. The van der Waals volume (Vw) of R-group, which is a measure of bulk, also stands a measure of the hydrophobic nature of the R-substituent, as evidenced from its near linear relation with hydrophobicity index, k', for these ligands. Through the use of an indicator parameter, it could be inferred that if the substituent has more CH2 instead of secondary CH adjacent to the point of attachment, R-O, the ligand will be more efficacious with adenosine receptors.

50257-84-6 50257-85-7 50257-89-1 131933-17-0 50257-95-9 131933-15-8 131933-26-1 131933-20-5 131933-27-2

131973-26-7

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)

(theor. structure-activity relationship study of 2-alkoxyadenosines as selective agonists at the coronary artery A2-adenosine receptor)

50257-84-6 CAPLUS

Adenosine, 2-butoxy- (9CI) (CA INDEX NAME) CN

RN 50257-85-7 CAPLUS

CN Adenosine, 2-(pentyloxy)- (CA INDEX NAME)

Absolute stereochemistry.

RN 50257-89-1 CAPLUS

CN Adenosine, 2-(2-hydroxyethoxy)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 50257-95-9 CAPLUS

CN Adenosine, 2-(hexyloxy)- (CA INDEX NAME)

Absolute stereochemistry.

RN 131933-15-8 CAPLUS

CN Adenosine, 2-(3-methylbutoxy)- (CA INDEX NAME)

131933-17-0 CAPLUS RN

Adenosine, 2-(cyclohexylmethoxy)- (9CI) (CA INDEX NAME) CN

Absolute stereochemistry.

131933-20-5 CAPLUS

Adenosine, 2-(4-cyclohexylbutoxy)- (9CI) (CA INDEX NAME) CN

Absolute stereochemistry.

RN

131933-26-1 CAPLUS Adenosine, 2-(2-ethylbutoxy)- (9CI) (CA INDEX NAME) ${\tt CN}$

Absolute stereochemistry.

131933-27-2 CAPLUS RN

Adenosine, 2-[(3-ethylpentyl)oxy]- (9CI) (CA INDEX NAME)

RN 131973-26-7 CAPLUS

Adenosine, 2-[(4-methylpentyl)oxy]- (9CI) (CA INDEX NAME) CN

Absolute stereochemistry.

THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

ANSWER 84 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN L6

1995:367220 CAPLUS AN

122:123777 DN

OREF 122:22939a,22942a

Comparison of A4 and A2a binding sites in striatum and COS cells TΙ transfected with adenosine A2a receptors

ΑU Luthin, David R.; Linden, Joel

Departments Internal Medicine Cardiovascular Division, University Virginia CS Health Sciences Center, Charlottesville, VA, USA

SO Journal of Pharmacology and Experimental Therapeutics (1995), 272(2), 511-18 CODEN: JPETAB; ISSN: 0022-3565

Williams & Wilkins

DT Journal

PB

English

LAAΒ A putative A4 adenosine receptor is characterized by a distinct structure activity profile of compds. in competition for [3H]2-phenylaminoadenosine ([3H]CV 1808) binding sites on rat brain membranes assayed at 4°. We now confirm that A4 binding sites can be demonstrated on ice-cold membranes of rat striatum and demonstrate a similar binding site on COS cells transfected with rat A2a adenosine receptors (COS/A2a). The characteristic A4 potency order is: CV 1808 > $[1R-(1\alpha, 2\alpha, 3\beta, 5\beta)]-3-(2, 6-diamino-N2-(3$ carbethoxyphenyl)-9H-purin-9-yl)-5'-(N-ethylcarbamoyl)-1,2cyclopentanediol (CGS 22988) » 5'-N-ethylcarboxamidoadenosine (NECA) ≥ 2-[4-(2-carboxyethyl)phenylethylamino]-5'-Nethylcarboxamidoadenosine (CGS 21680); 9-chloro-2-(2-furyl)[1,2,4]-triaolo[1,5-c]-quinazolin-5-amine (CGS 15943) only partially inhibits binding at 1 μM . If [3H]CGS 21680 is used for ice-cold assays, or if either [3H]CV 1808 or [3H]CGS 21680 are used for assays at 21°, the potency order of competing compds. changes markedly and becomes characteristic of A2a adenosine receptor binding sites; CGS 15943 \geq CGS 21680 .simeq. NECA > CGS 22988 \geq CV 1808. Binding of [3H]CGS 21680, but not [3H]CV 1808, is enhanced by the pore-forming antibiotic, alamethicin. Guanosine 5'-0-(3-thiotriphosphate) decreases the binding of both radioligands to striatal membranes at 21° more than to membranes on ice. We propose that differential effects of temperature on the binding characteristics of compds. with distinct physicochem. properties to various pools of a single A2a adenosine receptor can result in A4 and A2a binding profiles. 53296-10-9, CV 1808

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL

10/598,520

RN

CN

(Biological study); PROC (Process) (cold effect on adenosine A2a - A4 receptor binding activity of) 53296-10-9 CAPLUS Adenosine, 2-(phenylamino)- (CA INDEX NAME)

Absolute stereochemistry.

THERE ARE 14 CAPLUS RECORDS THAT CITE THIS RECORD (14 CITINGS) OSC.G 14

ANSWER 85 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN

1995:349895 CAPLUS AN

122:154099 DN

OREF 122:28333a,28336a

ΤТ Herbicidally active sulfamoyl nucleosides. Isolation and synthesis.

Kristinsson, Kaukur; Nebel, Kurt; O'Sullivan, Anthony C.; Pachlatko, J. ΑU Paul; Yamaguchi, Yasuchika

CS

Crop Protection Div., Ciba-Geigy AG, Basel, 4002, Switz. ACS Symposium Series (1995), 584(Synthesis and Chemistry of Agrochemicals IV), 206-19

CODEN: ACSMC8; ISSN: 0097-6156

PB American Chemical Society

DT Journal

LΑ English

The isolation of the herbicidal 2-chloro-5'-O-sulfamoyladenosine (I) is AB reported. Its relation to other herbicidal nucleosides is described. Two new and direct synthetic routes to I were established and a number of derivative were prepared Herbicidal activity was found in analogs structurally close to I. An in vitro toxicol. screen was applied to these compds.

79936-11-1 $\operatorname{I}\operatorname{T}$

RL: RCT (Reactant); RACT (Reactant or reagent) (reaction in herbicidal sulfamoyl nucleoside preparation)

RN

79936-11-1 CAPLUS Adenosine, 2-cyano- (9CI) (CA INDEX NAME) CN

Absolute stereochemistry.

osc.g 3 THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD (3 CITINGS)

ANSWER 86 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN L6

1995:340312 CAPLUS AN

DN 122:123739

OREF 122:22927a,22930a

ТΤ Binding of the adenosine A2a receptor ligand [3H]CGS 21680 to human platelet membranes

ΑU Varani, Katia; Borea, Pier Andrea; Guerra, Laura; DionisottI, Silvioo; Zocchi, Cristina; Ongini, Ennio

CS Inst. Pharmacology, Univ. Ferrara, Ferrara, 44100, Italy

Research Communications in Molecular Pathology and Pharmacology (1995), SO 87(1), 109-10

CODEN: RCMPE6; ISSN: 1078-0297

PB PJD Publications

DT Journal

LA English

AB The binding characteristics of the selective adenosine A2a agonist [3H]-CGS 21680 in human platelet membranes. Addnl., the potency of several adenosine agonists was determined in adenylate cyclase studies. Specific binding was saturable, reversible, and dependent upon protein concentration Results indicate that in platelets [3H]-CGS 21680 labels also the nonreceptor binding site (adenotin site) for [3H]-NECA binding described in peripheral tissue.

IT 53296-10-9, CV 1808

RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

(adenosine A2a receptor ligand CGS 21680 and other adenosine agonists binding and functional activity in human platelet membranes)

RN 53296-10-9 CAPLUS

CN Adenosine, 2-(phenylamino) - (CA INDEX NAME)

Absolute stereochemistry.

OSC.G 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

L6 ANSWER 87 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN

AN 1995:303926 CAPLUS

DN 122:72515

OREF 122:13611a,13614a

 ${\tt TI}$ Functional characterization of the adenosine receptor mediating inhibition of intestinal secretion

AU Hancock, Debra L.; Coupar, Ian M.

CS Sch. Pharmacol., Monash Univ., Victoria, 3052, Australia

SO British Journal of Pharmacology (1995), 114(1), 152-6

CODEN: BJPCBM; ISSN: 0007-1188

PB Stockton

DT Journal

LA English

Previous studies have shown that the mixed A1/A2 adenosine agonist 5'-N-ethylcarboxamidoadenosine (NECA) inhibits intestinal fluid secretion which is thought to contribute its antidiarrheal effect in the rat. The aim of this study was to characterize the adenosine receptor mediating this antisecretory effect via functional studies using a range of selective agonists and antagonists and by applying the pharmacol. criteria of relative agonist and antagonist potencies. Adenosine agonists and antagonists were administered i.v. to anesthetized rats. Intestinal secretion was then stimulated by i.a. infusion of vasoactive intestinal peptide (VIP, 0.8 μ g min-1) and the net fluid transport across the wall of the jejunum was measured by a recirculation technique. The rank order agonist potency to reduce the response to VIP was: NECA > N6-cyclopentyladenosine (CPA) > R-N6-(2-phenylisopropyladenosine) (R-PIA) > S-PIA > chloroadenosine (2-CADO) > 2-phenylaminoadenosine (CV-1808). This order best complies with the rank order of agonist potency that represents activation of the recently described A2B receptor: NECA > 2-CADO > R-PIA = CHA > S-PIA > = CV-1808 > = GCS-21680. The most potent agonists (NECA, CPA and R-PIA) had ED50 values in the low microgram range. The antisecretory action of NECA (submaximal dose of 40 μg kg-1) was antagonized equally (approx. 50%) by the selective adenosine antagonists 8-cyclopentyl-1,3-dipropylxanthine (DPCPX, 0.1 mg kg-1) and 8-phenyltheophylline (8-PT, 0.1 mg kg-1). This equipotent activity indicates the presence of an A2 and not an A1 receptor. It is suggested that adenosine A2B receptor agonists could be evaluated for potential use

as antidiarrheal drugs.

53296-10-9, 2-Phenylaminoadenosine

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(adenosine receptor subtype mediating adenosine analog inhibition of intestinal secretion and antidiarrheal activity)

RM 53296-10-9 CAPLUS

Adenosine, 2-(phenylamino) - (CA INDEX NAME) CN

Absolute stereochemistry.

OSC.G 20 THERE ARE 20 CAPLUS RECORDS THAT CITE THIS RECORD (20 CITINGS)

ANSWER 88 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN L6

1995:275005 CAPLUS ΑN

DN 122:46518

OREF 122:8734a

Adenosine receptor agonists for the promotion of wound healing TT

IN Cronstein, Bruce N.; Levin, Richard I.

PANew York University, USA

PCT Int. Appl., 35 pp.

CODEN: PIXXD2

DT Patent

English ${\rm LA}$

| FAN. | CNT 1 | | | | | |
|------|-----------------|-------------------|-------------------------|------------|--|--|
| | PATENT NO. | KIND DATE | APPLICATION NO. | DATE | | |
| | | | | | | |
| PI | WO 9423723 | A1 19941027 | WO 1994-US2011 | 19940218 | | |
| | W: AU, CA, JP | | | | | |
| | RW: AT, BE, CH, | , DE, DK, ES, FR, | GB, GR, IE, IT, LU, MC, | NL, PT, SE | | |
| | AU 9465164 | A 19941108 | AU 1994-65164 | 19940218 | | |
| | US 5932558 | A 19990803 | US 1996-712942 | 19960913 | | |
| | US 6020321 | A 20000201 | US 1999-243538 | 19990203 | | |
| PRAI | US 1993-46297 | A 19930415 | | | | |
| | WO 1994-US2011 | W 19940218 | | | | |
| | US 1996-712942 | A1 19960913 | | | | |

Agonists of the adenosine A2 receptor promote the migration of endothelial cells, fibroblasts and epithelial cells. Thus, methods and pharmaceutical compns. useful for treating wounds and promoting wound healing comprise agents which cause stimulation of the adenosine A2 receptor, preferably receptor agonists and adenosine uptake blockers. Preferred agonists include 2-phenylaminoadenosine, 2-p-(2-carboxyethyl)phenylamino-5'Nethylcarboxamidoadenosine, 5'N-ethylcarboxamidoadenosine, 5'N-cyclopropyladenosine, 5'N-methylcarboxamidoadenosine and PD-125944. Preferred uptake blockers include dipyridamole, nitrobenzothioinosine, dilazep and R75231.

53296-10-9, 2-Phenylaminoadenosine

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(adenosine receptor agonists for the promotion of wound healing)

RN 53296-10-9 CAPLUS

Adenosine, 2-(phenylamino) - (CA INDEX NAME)

OSC.G 4 THERE ARE 4 CAPLUS RECORDS THAT CITE THIS RECORD (7 CITINGS)

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T.6
    ANSWER 89 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN
    1995:188936 CAPLUS
AN
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DN 122:669

OREF 122:155a,158a

Glibenclamide reduces the coronary vasoactivity of adenosine receptor TΤ agonists

ΑU

Niiya, Kazunori; Uchida, Shinji; Tsuji, Takao; Olsson, Ray A. Dep. Intern. Med. Biochem. Mol. Biol., Univ. South Florida, Tampa, FL, USA CS

Journal of Pharmacology and Experimental Therapeutics (1994), 271(1), SO 14-19

CODEN: JPETAB; ISSN: 0022-3565

PB Williams & Wilkins

DT Journal

LΑ English

AB Expts. in guinea pig heart Langendorff prepns. assessed the effect of KATP channel blockade on the coronary vasoactivity of adenosine and 17 analogs chosen to represent a variety of purine and ribose modifications. Although glibenclamide is a functional antagonist that acts at the level of an effector rather than at a receptor, it caused parallel rightward shifts of agonist dose-response curves. The size of the shift of EC50differed according to the kind of analog: the ranking was, generally, N6-phenethyladenosines > 2-aryl-aminoadenosines = 2-(1-alkyn-1-yl) adenosines > N6-cycloalkyladenosines = adenosine 5'-uronamides. The coronary vasoactivity ranking of agonists in the presence of supramaximal concns. of glibenclamide was 2-(1-alkyn-1-yl)adenosines = 2-aralkoxyadenosines > 2-aralkylaminoadenosines > 2-arylaminoadenosines > N6-substituted adenosines. Glibenclamide did not affect the vasoactivity of adenosine itself, perhaps because avid uptake by endothelial cells prevented penetration of the agonist to receptors deeper in the vascular wall. results exclude a model consisting of one kind of receptor acting exclusively through a KATP channel, argue against one kind of receptor coupled to a KATP channel as well as to an addnl. effector but is consistent with two kinds of vasodilatory adenosine receptors, one of which activates a KATP channel. The identity of the adenosine receptor coupled to the KATP channel is uncertain; the other receptor has the pharmacol. profile of an A2a-adenosine receptor. TT

53296-10-9, CV 1808 76888-18-1 102712-00-5 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)

(glibenclamide reduces coronary vasoactivity of adenosine receptor agonists)

53296-10-9 CAPLUS

Adenosine, 2-(phenylamino)- (CA INDEX NAME)

RN 76888-18-1 CAPLUS

CN Adenosine, 2-[(3-acetylphenyl)amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 102712-00-5 CAPLUS

CN Adenosine, 2-[[3-(1-oxopropyl)phenyl]amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

OSC.G 18 THERE ARE 18 CAPLUS RECORDS THAT CITE THIS RECORD (18 CITINGS)

L6 ANSWER 90 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN

AN 1994:692389 CAPLUS

DN 121:292389

OREF 121:53203a,53206a

TI Failure of CGS15943A to block the hypotensive action of agonists acting at the adenosine A3 receptor

AU Patel, M.; Sheehan, M. J.; Strong, P.

CS Cellular Sci., Glaxo Res. Dev. Ltd., Ware, Herts, SG12 ODP, UK

SO British Journal of Pharmacology (1994), 113(3), 741-8

CODEN: BJPCBM; ISSN: 0007-1188

PB Stockton

DT Journal LA English Adenosine receptor agonists were evaluated for their activity at the putative adenosine A3 receptor which mediates a 'xanthine-resistant' hypotensive response in the anesthetized rat. The compds. tested were: the A1/A3 receptor agonist, N-[2-(4-aminophenyl)ethyl]adenosine (APNEA), the non-selective adenosine receptor agonist, $5\,\mbox{'-N-ethylcarboxamidoadenosine}$ (NECA), the adenosine A1 receptor-selective agonists, N-[(1S,trans)-2-hydroxycyclopentyl]adenosine (GR79236) and N6-cyclopentyl adenosine (CPA), the A2a receptor-selective agonists, 2-[[2-[4-(2-carboxyethyl) phenyl] ethyl]amino]-N-ethylcarboxamidoadenosine (CGS21680) and 2-phenylaminoadenosine (CV1808), and the moderately A2b selective agonist, N-[(2-methylphenyl)methyl]adenosine (metrifudil). In conformation of literature findings, APNEA (1-1000 nmol kg-1) induced hypotension and bradycardia; the hypotension was not blocked by pretreatment with the xanthine antagonist, 8-P-sulfophenyltheophylline (8-sPT; 40 mg kg-1, i.v.), whereas the bradycardia was attenuated. The non-xanthine antagonist, 9-fluoro-2-(2-furyl)-5,6-dihydro [1,2,4]triazolo $\{1,5-c\}$ -quinazin-5-imine (CGS15943A; 3 mg kg-1 i.v.), also attenuated the bradycardia without affecting the hypotension. The adenosine A1 receptor-selective agonists, GR79236 and CPA, both produced dose-dependent falls in blood pressure and heart rate which were antagonized by 8-sPT (40 mg kg-1) and CGS15943A (3 mg kg-1). The adenosine A2a receptor-selective agonists, CGS21680 and CV1808, produced only a hypotensive response which was antagonized by 8-sPT (40 mg kg-1)

and to a much greater extent by CGS15943A (3 mg kg-1), consistent with the response being mediated solely by A2a receptors. The modestly A2b receptor-selective agonist, metrifudil, produced a dose-dependent fall in blood pressure and at higher doses a fall in heart rate. The hypotension induced by metrifudil was not antagonized by either 8-sPT (40 mg kg-1) or CGS15943A (3 mg kg-1) even though the bradycardia was abolished, suggesting that this agonist activates the putative A3 receptor. non-selective adenosine receptor agonist, NECA, produced a hypotension and bradycardia that was attenuated by 8-sPT (40 mg kg-1), confirming previous work. The non-xanthine antagonist, CGS15943A (3 mg kg-1), also attenuated the hypotension and bradycardia. The bradycardia was blocked to a much greater extent, suggesting that NECA may therefore induce hypotension partly by activating the putative A3 receptor. In conclusion, we have confirmed that the putative A3 receptor mediating hypotension in the anesthetized rat is not blocked by 8-sPT, and further shown that it is not blocked by CGS15943A. The A2a agonists CGS21680 and CV1808 showed no discernible activity at the A3 receptor, whereas APNEA, NECA, CPA and metrifudil appear to activate this receptor. The adenosine Al receptor agonist, GR79236, shows considerable selectivity for the Al receptor but may activate the A3 receptor at high doses.

53296-10-9, CV1808

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(adenosine receptor agonists effects on 'xanthine-resistant' hypotensive response mediated by adenosine A3 receptor)

RN 53296-10-9 CAPLUS

Adenosine, 2-(phenylamino)- (CA INDEX NAME)

Absolute stereochemistry.

OSC.G THERE ARE 8 CAPLUS RECORDS THAT CITE THIS RECORD (8 CITINGS)

ANSWER 91 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN

1994:645905 CAPLUS AN

121:245905 DN

OREF 121:44639a,44642a

2-[2-[4-[2-[2-[1,3-Dihydro-1,1-bis(4-hydroxyphenyl)-3-oxo-5isobenzofuranthioureidyl]ethylaminocarbonyl]ethyl]phenyl]ethylamino]-5'-Nethylcarboxamidoadenosine (FITC-APEC): a fluorescent ligand for A2a-adenosine receptors

McCabe, R. Tyler; Skolnick, Phil; Jacobson, Kenneth A. ΑU

Lab. Neurosci., Pharm. Discovery Corp., Elmsford, NY, 10523, USA Journal of Fluorescence (1992), 2(4), 217-23 CS

CODEN: JOFLEN; ISSN: 1053-0509

DT Journal

SO

English LΑ

ΔB The fluorescein conjugate FITC-APEC is a novel ligand derived from a series of functionalized congeners that act as selective A2a-adenosine receptor agonists. The binding of FITC-APEC to bovine striatal A2a-adenosine receptors, measured by fluorescence techniques, was saturable and of a high affinity, with a Bmax of 2.3 pmol/mg protein and KD of 57 nM. The KD value estimated by fluorescence was consistent with the Ki (11 nM) obtained by competition studies with [3H]CGS 21680. Addnl., the Bmax value found by FITC-APEC measurement was in agreement with Bmax values obtained by radioligand binding. FITC-APEC exhibited rapid and reversible binding to bovine striatum. The potencies of chemical diverse A2a-adenosine receptor ligands, as estimated by inhibition of FITC-APEC binding, were in good agreement with their potencies determined by radioligand binding techniques (r = 0.97). FITC-APEC binding was not altered by purine derivs. that do not recognize A2a-adenosine receptors. These

findings demonstrate that the novel fluorescent ligand FITC-APEC can be used in the quant. characterization of ligand binding to A2a-adenosine receptors.

53296-10-9, 2-(Phenylamino) adenosine TT

> RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

(adenosine analog-fluorescein conjugate binding to striatal adenosine A2a receptors inhibition by)

RN 53296-10-9 CAPLUS

Adenosine, 2-(phenylamino) - (CA INDEX NAME) CN

Absolute stereochemistry.

OSC.G THERE ARE 6 CAPLUS RECORDS THAT CITE THIS RECORD (6 CITINGS)

ANSWER 92 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN 1.6

AN 1994:524874 CAPLUS

121:124874

OREF 121:22297a,22300a

Inhibition of platelet aggregation by adenosine receptor agonists TΤ

Cristalli, Gloria; Vittori, Sauro; Thompson, Robert D.; Padgett, William L.; Shi, Dan; Daly, John W.; Olsson, Ray A. Dip. Sci. Chimiche, Univ. Camerino, Camerino, I-62032, Italy Naunyn-Schmiedeberg's Archives of Pharmacology (1994), 349(6), 644-50 ΑIJ

CS

SO CODEN: NSAPCC; ISSN: 0028-1298

DT Journal

English LΑ AB

2-(Ar)alkoxyadenosines, which are agonists selective for the A2AAR in PC 12 cell and rat striatum membranes, are also agonists at the A2AR coupled to adenylate cyclase (AC) that mediates the inhibition of platelet aggregation. A panel of twelve well-characterized adenosine analogs stimulated human platelet AC and inhibited ADP-induced platelet aggregation at sub- to low-micromolar concns. with a potency ranking CGS 21680>adenosine>R-PIA. There were significant correlations between the EC50 of stimulation of platelet and PC 12 cell AC (r2 = 0.66 and 0.67, resp.) or the Ki of inhibition of [3H]NECA binding to the rat striatum membranes (r2 = 0.75). Likewise, platelet AC stimulation correlated well with stimulation of PC 12 cell AC and with [3H]NECA binding (r2 = 0.94 and 0.91, resp.). Ten 2-(ar)alkoxyadenosines stimulated platelet AC at EC50s ranging between 0.16 and 2.3 μM and inhibited platelet aggregation at EC50s ranging between 2 and 30 μM . There were no correlations between the EC50s of the stimulation of platelet or PC 12 AC (r2 = 0.08 and 0.06, resp.) or with the Ki of the inhibition of [3H]NECA binding to the A2aAR in rat striatum (r2 = 0.02). The EC50s of the stimulation of platelet AC correlated with those of the stimulation of PC 12 AC (r2 = 0.48), and also with the Ki of [3H] NECA binding (r2 = 0.71). Each of the 23 adenosines completely inhibited platelet aggregation and thus, functionally, all behaved as full agonists. As stimulants of PC 12 cell AC, Group A and B analogs were equally efficacious. As stimulants of platelet AC, however, the efficacy relative to NECA (= 1.0) of Group B analogs was significantly less than that of Group A analogs, 0.49 ± 0.2 vs. 0.72 ± 0.05 , P<0.01. The partial agonist activity of Group B analogs at the platelet A2AR but full agonist activity at the PC 12 cell A2aAR, as well as the relatively low correlations between platelet AC stimulation and other indexes of A2aAR agonist activity, suggest the platelet receptor is not a typical A2aAR. Further, the lack of a correlation between the platelet anti-aggregation and AC stimulatory activity suggests that (a) the 2-(ar)alkoxyadenosines might affect platelet aggregation by mechanisms other than AC stimulation of (b) that the stimulation of the platelet membrane AC by 2-(ar)alkoxy-adenosines does not correspond to the accumulation of cAMP in intact platelets.

10/598,520

50257-84-6 50257-89-1 53296-10-9 131865-81-1 RL: BIOL (Biological study) (platelet aggregation inhibition by)

RN

50257-84-6 CAPLUS Adenosine, 2-butoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 50257-89-1 CAPLUS

CN Adenosine, 2-(2-hydroxyethoxy)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN

53296-10-9 CAPLUS Adenosine, 2-(phenylamino)- (CA INDEX NAME) CN

Absolute stereochemistry.

RN 131865-81-1 CAPLUS

CNAdenosine, 2-(4-phenylbutoxy)- (CA INDEX NAME)

Absolute stereochemistry.

OSC.G 39 THERE ARE 39 CAPLUS RECORDS THAT CITE THIS RECORD (39 CITINGS)

McIntosh

L6 ANSWER 93 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN

AN 1994:500054 CAPLUS

DN 121:100054

OREF 121:17759a,17762a

TI A binding site model and structure-activity relationships for the rat ${\tt A3}$ adenosine receptor

AU van Galen, Philip J. M.; van Bergen, Andrew H.; Gallo-Rodriguez, Carola; Melman, Neli; Olah, Mark E.; Ijzerman, Ad P.; Stiles, Gary L.; Jacobson, Kenneth A.

CS Lab. Bioorganic Chem., Natl. Inst. Diabetes, Digestive and Kidney Diseases, Bethesda, MD, 20892, USA

SO Molecular Pharmacology (1994), 45(6), 1101-11 CODEN: MOPMA3; ISSN: 0026-895X

DT Journal

LA English

AB A novel adenosine receptor, the A3 receptor, has recently been cloned. The authors have systematically investigated the hitherto largely unexplored structure-activity relationships (SARs) for binding at A3 receptors, using 125I-N6-2-(4-aminophenyl) ethyladenosine as a radioligand and membranes from Chinese hamster ovary cells stably transfected with the rat A3-cDNA. As is the case for A1 and A2a receptors, substitutions at the N6 and 5' positions of adenosine, the prototypic agonist ligand, may yield fairly potent compds. However, the highest affinity and A3 selectivity is found for N6,5'-disubstituted compds., in contrast to A2 and A2a receptors. Thus, N6-benzyladenosine-5'-N-ethylcarboxamide is highly potent (Ki, 6.8 nM) and moderately selective (13- and 14-fold vs. Al and A2a). The N6 region of the A3 receptor also appears to tolerate hydrophilic substitutions, in sharp contrast to the other subtypes. Potencies of N6,5'-disubstituted compds. in inhibition of adenylate cyclase via A3 receptors parallel their high affinity in the binding assay. None of the typical xanthine or nonxanthine (A1/A2) antagonists tested show any appreciable affinity for rat A3 receptors. 1,3-Dialkylxanthines did not antagonize the A3 agonist-induced inhibition of adenylate cyclase. A His residue in helix 6 that is absent in A3 receptors but present in A1/A2 receptors may be causal in this respect. In a mol. model for the rat A3 receptor, this mutation, together with an increased bulkiness of residues surrounding the ligand, make antagonist binding unfavorable when compared with a previously developed A1 receptor model. Second, this A3 receptor model predicted similarities with A1 and A2 receptors in the binding requirements for the ribose moiety and that xanthine-7-ribosides would bind to rat A3 receptors. This hypothesis was supported exptl. by the moderate affinity (Ki, 6 μ M) of 7-riboside of 1,3-dibutylxanthine, which appears to be a partial agonist at rat A3 receptors. The model presented here which is consistent with the detailed SAR found in this study, may serve to suggest future chemical modification, site-directed mutagenesis, and SAR studies to further define essential characteristics of the ligand-receptor interaction and to develop even more potent and selective A3 receptor ligands.

IT 53296-10-9, 2-(Phenylamino)adenosine

RL: BIOL (Biological study)

(adenosine A1 and A2a and A3 receptors affinity for, mol. structure in relation to) $\,$

RN 53296-10-9 CAPLUS

CN Adenosine, 2-(phenylamino) - (CA INDEX NAME)

Absolute stereochemistry.

OSC.G 113 THERE ARE 113 CAPLUS RECORDS THAT CITE THIS RECORD (114 CITINGS)

L6 ANSWER 94 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN

10/598,520

AN 1994:473772 CAPLUS DN 121:73772 OREF 121:13003a,13006a TΤ Modulation of intraocular pressure by adenosine agonists Crosson, Craig E.; Gray, Tracy Health Sci. Cent., Texas Tech Univ., Lubbock, TX, USA Journal of Ocular Pharmacology (1994), 10(1), 379-83 CS SO CODEN: JOPHER; ISSN: 8756-3320 DT Journal English LΑ To investigate the potential role of adenosine receptors in modulating AΒ intraocular pressure (IOP), the A1 agonist N6-cyclopentyladenosine (CPA), the nonselective adenosine agonist 5'-N-ethylcarboxamidoadenosine (NECA) and the A2 agonist 8-phenylaminoadenosine (CV-1808) were evaluated. Topical administration of NECA to rabbits produced a dose-related reduction in IOP. However, an initial ocular hypertension of 1-2-h duration was also observed in rabbits treated with NECA. CPA (165 μg) caused only a reduction in IOP, while CV-1808 produced only an initial ocular hypertension. As adenosine A1 receptors have been shown to be neg. coupled to adenylate cyclase in several systems, CPA was evaluated for its ability to suppress cAMP formation in the isolated iris/ciliary body. CPA produced a concentration-related suppression of the cAMP accumulation induced by 10-6M forskolin (EC50 = $3.2\,$ nM). These results indicate that selected adenosine agonists can modulate IOP. The ocular hypotension induced by adenosine agonists is consistent with the activation of adenosine Al receptors and may involve the modulation of cAMP levels in the iris/ciliary body. 53296-10-9, CV 1808 TT RL: BIOL (Biological study) (eye intraocular pressure response to) 53296-10-9 CAPLUS Adenosine, 2-(phenylamino)- (CA INDEX NAME) CN

Absolute stereochemistry.

THERE ARE 16 CAPLUS RECORDS THAT CITE THIS RECORD (16 CITINGS) OSC.G 16

ANSWER 95 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN 1994:260573 CAPLUS 120:260573 DN OREF 120:45825a,45828a TΙ Functional characterization of the A2b adenosine receptor in NIH 3T3 fibroblasts Brackett, L. Ellen; Daly, John E. Lab. Bioorg. Chem., Natl. Inst. Diabetes Dig. Kidney Dis., Bethesda, MD, ΑU CS 20892, USA SO Biochemical Pharmacology (1994), 47(5), 801-14 CODEN: BCPCA6; ISSN: 0006-2952 DТ Journal LA English The adenosine (ADO) receptor in NIH 3T3 fibroblasts was characterized AΒ using a series of adenosine agonists and selected xanthine and non-xanthine antagonists. The ADO receptor elicited accumulations of cAMP in intact NIH 3T3 fibroblasts and caused activation adenylate cyclase in membrane prepns. The receptor had characteristics of the A2b subtype of adenosine receptor. ADO analogs had relatively high EC50 values at the receptor and were antagonized competitively by xanthines. The rank order of potency for adenosine analogs in NIH 3T3 fibroblasts for cAMP accumulation was: NECA > 2-ClADO > R-PIA » CV1808, CGS 21680. The EC50 for 2-ClADO was 4.3 μM in intact cells and 15 μM in membrane prepns. All ADO analogs were more potent at the A2a receptor of pheochromocytoma PC12 membranes than at the A2b receptor of fibroblast NIH

1.6

3T3 membranes. Structure-activity relationships suggested that the regions of interaction with 5'- and N6-substituents of ADO were similar for both the PC12 A2a and NIH 3T3 A2b receptor. However, ADO analogs with large substituents in the 2'-position, such as 2-cyclohexylethoxyADO and CGS 21680, were highly selective for the A2a receptor. All ADO analogs tested were stimulatory to adenylate cyclase at the NIH 3T3 A2b receptor, including 5'-methylthioADO, which was a weak partial agonist. A series of xanthine antagonists were not selective for the NIH 3T3 A2b vs. the PC12 $\,$ A2a receptor. In all cases, xanthines were more potent as antagonist in the intact NIH 3T3 cells than in NIH 3T3 membranes. In a series of non-xanthine antagonists, most compds. were equipotent of slightly more potent at the A2a receptor except for alloxazine, which was approx. 9-fold selective for the A2b receptor.

53296-10-9, CV1808

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)

(adenosine receptor agonist activity of, in fibroblasts and pheochromocytoma cells, structure in relation to)

RN 53296-10-9 CAPLUS

Adenosine, 2-(phenylamino)- (CA INDEX NAME) CN

Absolute stereochemistry.

OSC.G 90 THERE ARE 90 CAPLUS RECORDS THAT CITE THIS RECORD (90 CITINGS)

ANSWER 96 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN

1994:236896 CAPLUS AN

DN 120:236896

OREF 120:41761a,41764a

ТΤ Discrimination of A1 versus A2 receptor subtype selectivity of adenosine receptor agonists in vivo

Barrett, Richard J.; Droppleman, David A.; Wright, Kathryn F. ΑIJ

CS

Dep. Pharmacol., Whitby Res., Inc., Richmond, VA, USA Journal of Pharmacology and Experimental Therapeutics (1994), 268(3), 1166-73

CODEN: JPETAB; ISSN: 0022-3565

DT Journal

LA English

Previous attempts to discern and quantify the selectivity of agonists for AB Al vs. A2 adenosine receptors in vivo have been confounded by the activation of baroreceptor reflexes and/or simultaneous expression of responses to both Al and A2 receptor activation. In anesthetized, vagotomized rats with isolated in situ constant-flow perfused hindquarters (HQ), bradycardic responses to i.v. agonist injections measured A1 receptor activation and HQ vasodilation elicited by i.a. agonist injections measured the stimulation of A2 receptors. Adenosine and 5'-N-ethylcarboxamidoadenosine (NECA) produced A2 receptor-mediated HQ vasodilation at doses 8- and 4-fold lower (-log ED50 values, 7.3 mol and 8.7 mol, resp.) than those required to evoke A1 receptor-mediated bradycardia (-log ED50 values, 6.4 mol and 8.1 mol, resp.). N6-cyclopentyladenosine (CPA) was approx. 8-fold selective for A1 receptors (-log ED50 values, A1, 8.5 mol; A2, 7.6 mol). 2-(Phenylamino)adenosine (CV-1808) and 2[2(4-fluorophenyl)ethoxy]adenosine (FPEA) were at least 125- and 200-fold more potent agonists at A2 receptors (-log ED50 values, 7.7 mol and 8.0 mol, resp.) than at A1 receptors (-log ED50 values, 5.6 mol and 5.7 mol, resp.). These studies demonstrated that stimulation of A1 and A2 receptors may be discriminated in vivo and that such responses are selective, reproducible, dose-dependent and quantifiable. A comparison of these in vivo measures with known in vitro data suggests that the A2a adenosine receptor mediates vasodilation in the rat HQ and that in vitro assays may predict the orders of potency of adenosine A1 and A2 receptor agonists in vivo but they are less reliable predictors of the absolute potency and, hence, the A1/A2 receptor selectivity of agonists.

ΤТ 53296-10-9, 2-(Phenylamino)adenosine

RL: BIOL (Biological study)

(purinergic A1 and A2 selectivity of, bradycardia and hindquarter vasodilation in discrimination of)

RM 53296-10-9 CAPLUS

Adenosine, 2-(phenylamino)- (CA INDEX NAME) CN

Absolute stereochemistry.

OSC.G 4 THERE ARE 4 CAPLUS RECORDS THAT CITE THIS RECORD (4 CITINGS)

ANSWER 97 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN 1.6

1994:125921 CAPLUS ΑN

DN 120:125921

OREF 120:22025a,22028a

Molecular cloning and functional expression of a sheep A3 adenosine ТΤ receptor with widespread tissue distribution

ΑIJ Linden, Joel; Taylor, Heidi E.; Robeva, Anna S.; Tucker, Amy L.; Stehle, Jorg H.; Rivkees, Scott A.; Fink, J. Stephen; Reppert, Steven M.

CS Lab. Dev. Chronobiol., Massachusetts Gen. Hosp., Boston, MA, 02114, USA

Molecular Pharmacology (1993), 44(3), 524-32SO CODEN: MOPMA3; ISSN: 0026-895X

DT Journal

LΑ

English Using the polymerase chain reaction, an A3 adenosine receptor has been AB cloned from the hypophysial par tuberalis of sheep. The clone encodes a 317-amino acid protein that is 72% identical to the rat A3 adenosine receptor. In contrast to rat, where abundant A3 mRNA transcript is found primarily in testis, the sheep transcript is most abundant in lung, spleen, and pineal gland and is present in moderate levels in brain, kidney, and testis. The agonist N6-amino[125I]iodobenzyladenosine binds with high affinity (Kd .simeq. 6 nM) and specificity to recombinant A3 adenosine receptors expressed transiently in COS-1 cells or stably in CHO K1 cells. The potency order of agonists is N6-aminoiodobenzyladenosine > N-ethylcarboxamidoadenosine ≥ (R)-phenylisopropyladenosine » cyclopentyladenosine. Little or no binding of purine nucleotides was detected. The potency order of antagonists is 3-(3-iodo-4-aminobenzyl)-8-(4-oxyacetate)phenyl-1-propylxanthine (I-ABOPX) (Ki = 3 nM) > 1,3-dipropyl-8-(4-acrylate) phenyl xanthine (BW-A1433) >1,3-dipropyl-8-sulfophenylxanthine = xanthine amine congener »
8-cyclopentyl-1,3-dipropylxanthine. Enprofylline does not bind. These data indicate that, in contrast to A1 adenosine receptors, A3 adenosine receptors preferentially bind ligands with aryl rings in the N6-position of adenine and in the C8-position of xanthine. Among antagonists, the A3 adenosine receptor preferentially binds 8-phenylxanthines with acidic $v\mathbf{s}\text{.}$ basic para-substituents (I-ABOPX > BW-A1433 > 1,3-dipropyl-8-sulforphenylxanthine = xanthine amine congener). Agonists reduce forskolin-stimulated cAMP accumulation in Chinese hamster ovary cells stably transfected with recombinant sheep A3 adenosine receptors; the reduction is blocked by BW-A1433 but not by 8-cyclopentyl-1,3-dipropylxanthine. These data suggest that (i) A3 adenosine receptors display unusual structural diversity for species homologs, (ii) in contrast to rat, sheep A3 adenosine receptors have a broad tissue distribution, and (iii) some xanthines with acidic side chains bind with high affinity to A3 adenosine receptors. 53296-10-9, CV1808

RL: BIOL (Biological study)

(binding to sheep A3 adenosine receptor of)

RN 53296-10-9 CAPLUS Adenosine, 2-(phenylamino) - (CA INDEX NAME)

Absolute stereochemistry.

137 THERE ARE 137 CAPLUS RECORDS THAT CITE THIS RECORD (140 CITINGS) OSC.G

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ANSWER 98 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN
1.6
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AN 1994:729 CAPLUS

120:729

OREF 120:167a,170a

Structure-activity relationship of 2-(ar)alkoxyadenosines at the adenosine ТΤ A2 receptor in coronary artery

ΑIJ Makujina, Shah R.; Olsson, Ray A.; Esinhart, James D.; Mustafa, S. Jamal

Sch. Med., East Carolina Univ., Greenville, NC, 27858-4354, USA CS

European Journal of Pharmacology (1993), 243(1), 35-8 SO CODEN: EJPHAZ; ISSN: 0014-2999

DT

English T.A The authors examined the ability of four 2-(ar)alkoxyadenosines AB [2-(2-phenylethoxy)adenosine, PEA; 2-[2-(2-naphthyl)ethoxy]adenosine, NEA; 2-[2-(4-methylphenyl)ethoxy]adenosine, mPEA; and 2-(1-hexyloxy)adenosine, HOA] to relax porcine coronary artery in vitro. All four compds. produced concentration-dependent relaxations in rings contracted with 30 mM KCl. The EC25 values are as follows (+ 10-9 mol/L): CGS21680, (2-[p-(2-carboxyethyl) phenethylamino]-5'-N-ethylcarboxamidoadenosine) (32.7) \approx NECA, 5'-N-ethylcarboxamidoadenosine (51.4) \approx mPEA (74.3) \approx NEA (160.7) > HOA (855.1) \approx PEA (1259) \approx 2-chloroadenosine (1871) > adenosine (9705). However, EC75 values for all the compds. except adenosine and 2-chlorodenosine converged to a range of 8.16 to 22.86 $\mu\text{M},$ suggesting a biphasic response. Furthermore, the responses were found to be independent of endothelial integrity. The unselective adenosine receptor antagonist 8-p-sulfophenyltheophylline (100 μ M) attenuated the relaxant response to NEA (EC25 = 1172 nM), suggesting that adenosine receptors mediated relaxation. Structure-activity correlations suggest that the adenosine A2 receptor in porcine coronary artery contains a region of limited bulk tolerance juxtaposed to the region occupied by adenine C-2 and distal to that a large hydrophobic region. 50257-95-9, 2-(1-Hexyloxy)adenosine RL: BIOL (Biological study)

TT

(coronary artery relaxation by, structure in relation to) 50257-95-9 CAPLUS

RN

Adenosine, 2-(hexyloxy)- (CA INDEX NAME) CN

Absolute stereochemistry.

Me
$$^{(CH_2)}_5$$
 NH_2 N $^$

THERE ARE 6 CAPLUS RECORDS THAT CITE THIS RECORD (6 CITINGS) OSC.G

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1.6
     ANSWER 99 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN
      1993:595546 CAPLUS
AN
     119:195546
DN
OREF 119:34637a,34640a
     Adenosine agonists reduce conditioned avoidance responding in the rat
     Martin, Gregory E.; Rossi, Donald J.; Jarvis, Michael F.
ΑIJ
     Dep. Pharmacol., Rhone-Poulenc Rorer Cent. Res., Collegeville, PA, 19426,
CS
     Pharmacology, Biochemistry and Behavior (1993), 45(4), 951-8 CODEN: PBBHAU; ISSN: 0091-3057
SO
DT
     Journal
LA
     English
AΒ
     Because adenosine agonists may possess therapeutic potential as
     antispychotic agents, the authors examined the activity of several
     prototypic agents in vivo in blocking conditioned avoidance (CAR) in the
      rat, a behavioral test predictive of antipsychotic efficacy in humans.
     Potency in blocking CAR is directly proportional to potency in alleviating
     schizophrenia. Hence, the adenosine Al-selective agonists [cyclopentyl adenosine (CPA) and (R)-phenylisopropyl adenosine (R-PIA)], A2-selective
     agonists [CV-1808] and (2-p(carboxyethyl)-(NECA)] were examined in this test.
     Block of CAR was first determined for standard antipsychotic agents [ED50 mg/kg,
     IP, and 95% confidence level (CL) in parentheses], such as haloperidol [0.23 (0.18, 0.39)], trifluoperazine [(0.9 (0.7, 1.0)], thioridazine [12.5 (10.5, 15.3)], metoclopramide [7.8 (6.4, 9.2)], and chlorpromazine [4.9
      (4.2, 5.9)]. The paradigm consisted of a light- and tone-signaled
      footshock that could be avoided via a discrete lever press. Affinity for
     A1 and A2 binding sites in brain tissue from Fischer 344 rats was
     ascertained to be similar to that seen in other rodent strains. Each
     adenosine agonists blocked CAR. NECA [ED50 value (95% CL) = 0.07 (0.004,
      0.12) mg/kg, IP] was the most potent agent, followed by: R-PIA [0.34
     (0.23, 0.44)]; CGS 21680 [1.1 (0.8, 2.0)]; CV-1808 [1.3 (1.0, 1.8)]; and CPA [1.5 (1.3, 1.7)]. Pretreatment with caffeine (25 mg/kg, IP, -10 min)
     blocked the inhibition of CAR produced by adenosine agonists, suggesting
     the event is mediated via purinergic receptors. As a test for
     extrapyramidal side effect potential, each agonist was administered at
     dose levels corresponding to the ED\infty5, ED50, and ED75 values for
     block of CAR and catalepsy was measured. Catalepsy was prominently
     produced by NECA and CPA, whereas CGS 21680 and R-PIA produced little.
     Neither potency in blocking CAR nor inducing catalepsy could be highly correlated with either relative affinity or selectivity for either A1 or
     A2 binding sites. The data suggest purinergic agonists might be effective
     antipychotic agents but may possess side effects that might preclude their
     use.
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IT 53296-10-9, CV1808

RL: BIOL (Biological study)

(conditioned avoidance responding reduction by, antipsychotic activity in relation to)

RN 53296-10-9 CAPLUS

CN Adenosine, 2-(phenylamino)- (CA INDEX NAME)

Absolute stereochemistry.

OSC.G 26 THERE ARE 26 CAPLUS RECORDS THAT CITE THIS RECORD (26 CITINGS)

L6 ANSWER 100 OF 195 CAPLUS COPYRIGHT 2010 ACS on SIN

AN 1993:532153 CAPLUS

DN 119:132153

OREF 119:23521a,23524a

TI Functional characterization of three adenosine receptor types

AU Gurden, M. F.; Coates, J.; Ellis, F.; Evans, B.; Foster, M.; Hornby, E.; Kennedy, I.; Martin, D. P.; Strong, P.; et al.

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Pharmacol. Div., Glaxo Group Res., Ware/Hertfordshire, SG12 ODP, UK British Journal of Pharmacology (1993), 109(2), 693-8
CS
       CODEN: BJPCBM; ISSN: 0007-1188
```

DT Journal

LΑ English

The purpose of the present study was to classify adenosine receptors into A1 and A2 subtypes in a wide range of isolated tissues and cell types (rat adipocytes and atria, guinea pig ileum and atria (A1); guinea pig aorta, dog coronary artery and human platelets and neutrophils (A2)) using the Rand S-diastereoisomers of N-phenylisopropyladenosine (PIA), N-cyclopentyladenosine (CPA), the novel compound, N-[(1S, trans)-2-hydroxycyclopentyl] adenosine (GR 79236), N-[(2-methylphenyl)methyl] adenosine (metrifudil), 2-(phenylamino) adenosine (CV 1808), and 2-[[2-[4-(2-carboxyethyl)phenyl]ethyl]amino]-Nethylcarboxamidoadenosine (CGS 21680); N-ethylcarboxamidoadenosine (NECA) was used as a standard Results obtained in all tissue prepns. previously reported to contain A1-receptors could be described by a single rank order of agonist potency: CPA \geq GR 79236, R-PIA \geq NECA >> S-PIA \geq metrifudil \geq CV 1808, CGS 21680. In contrast, 2 distinct rank orders of agonist potency were observed in prepns. previously reported to contain A2-receptors. In dog coronary artery, human neutrophils and platelets the rank order of potency was: CV 1808, CGS 21680 ≥ NECA > R-PIA \geq metrifudil \geq CPA > GR 79236, S-PIA. However, in guinea pig aorta the rank order was: NECA > metrifudil > R-PIA, CPA > CV 1808, GR 79236 \geq S-PIA, CGS 21680. The results indicate the existence of 3 types of adenosine receptor: A1- and 2 subtypes of A2-receptor. The receptor present in dog coronary artery, human platelets and neutrophils, probably corresponds to the A2a subtype, whilst that present in the quinea-pig aorta may be of the A2b subtype.

53296-10-9 RL: BIOL (Biological study)

(adenosine receptor subtype classification using, in human and laboratory animal tissues)

53296-10-9 CAPLUS RN

Adenosine, 2-(phenylamino) - (CA INDEX NAME) CN

Absolute stereochemistry.

OSC.G 74 THERE ARE 74 CAPLUS RECORDS THAT CITE THIS RECORD (74 CITINGS)

ANSWER 101 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN

1993:473033 CAPLUS

119:73033 DN

OREF 119:13185a,13188a

Preparation of 2-alkynyladenosine derivatives having high affinity for TΙ adenosine A2 receptor

Matsuda, Akira; Yamaguchi, Toyofumi; Miyashita, Takanori; Azebiru, Toichi; IN Watanabe, Yoko; Goto, Takao; Kojo, Kentaro; Narita, Senichi

PΑ Yamasa Shoyu Co., Ltd., Japan; Toa Eiyo, Ltd.

Jpn. Kokai Tokkyo Koho, 8 pp. SO

CODEN: JKXXAF

DT Pat.ent.

LA Japanese

| FAN.CNT 1 | | | | | | |
|-----------|------------------|------|----------|-----------------|----------|--|
| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE | |
| | | | | | | |
| PI | JP 05009197 | A | 19930119 | JP 1991-158991 | 19910628 | |
| | JP 3053908 | В2 | 20000619 | | | |
| PRAI | JP 1991-158991 | | 19910628 | | | |
| OS | MARPAT 119:73033 | | | | | |

GΙ

The title compds. [I; R = C(OH)R1R2, (CH2)nOR1, (CH2)nNR1R2, (CH2)nCO2R1, COR1, (CH2) nR3; R1, R2 = H, alkyl; n = 0-10; R3 = alkenyl, alkynyl, aryl, N3, cyano], having highly selective affinity to adenosine A2 receptor and very low affinity to Al receptor (no data), are prepared I have antihypertensive, (peripheral) vasodilatory, and blood platelet aggregation-inhibitory activities without inhibition of heart and central nervous system activity, and are useful for the treatment of hypertension and ischemic diseases (e.g. heart and brain ischemia). Thus, 2 mmol 2-iodoadenosine was dissolved in DMF, thereto 70 mg [Ph3P]2PdCl2, 38 mg CuI, 1.4 mL Et3N, and 2-5 mmol acetylene compound RC.tplbond.CH were added, and the mixture was allowed to react at $70-120^{\circ}$, concentrated, dissolved in MeOH, treated with H2S, and purified by silica gel chromatog. to give I. A total of 21 I [e.g. R = Me2C(OH)C.tplbond.C, Me2NCH2C.tplbond.C, HO2C(CH2)7C.tplbond.C, 4-Et02CC6H4(CH2)4C.tplbond.C] were prepared

IT 149009-12-1P

RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of, with selective adenosine A2 receptor affinity)

RN 149009-12-1 CAPLUS

Adenosine, 2-(6-amino-1-hexynyl)- (9CI) (CA INDEX NAME) CN

Absolute stereochemistry.

$$^{\text{NH}_2}$$
 $^{\text{NH}_2}$ $^{\text$

THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS) OSC.G 1

ANSWER 102 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN

1993:463783 CAPLUS AN

DN 119:63783

OREF 119:11297a,11300a

ТΤ Characterization of adenosine A2 receptors in bovine retinal pigment epithelial membranes

ΑIJ Blazynski, Christine

Sch. Med., Washington Univ., St. Louis, MO, 63110, USA Experimental Eye Research (1993), 56(5), 595-9 CS

SO

CODEN: EXERA6; ISSN: 0014-4835

DT Journal

LA English

The pharmacol. characteristics of adenosine A2 receptors are described for membranes prepared from bovine retinal pigmented epithelial (RPE). RPE cells were isolated after removal of retina, lysed by freeze-thawing, and membranes separated from cytoplasmic components. A single population of adenosine binding sites is present in RPE membranes, as determined from saturation anal. and competition binding assays. From Scatchard plots, this single class of binding sites exhibited low affinity for adenosine receptor agonists. These low affinity sites were labeled by

[3H]-N-ethylcarboxamido-adenosine (NECA) or [3H]-CGS 21680 and Kds of 423 and 5.3 μ M were determined for each radioligand, resp. NECA-mediated stimulation of adenylate cyclase demonstrated that these binding sites represent adenosine receptors. No high affinity A2a binding sites were detected in RPE membranes by either saturation studies, or by competition with adenosine Al-selective agonists which only displaced radioligand binding at high micromol. concns. The low affinity A2 receptor on RPE differs from the high affinity A2a receptor characterized in bovine retinal membranes, but may be similar or identical to the lower affinity A2b receptor detected in retinal membranes as well as other tissues. 53296-10-9, CV1808

RL: BIOL (Biological study)

(adenosine A2b receptors affinity for, of retina pigment epithelial cells)

RN 53296-10-9 CAPLUS

Adenosine, 2-(phenylamino) - (CA INDEX NAME) CN

Absolute stereochemistry.

THERE ARE 14 CAPLUS RECORDS THAT CITE THIS RECORD (14 CITINGS) OSC.G 14

ANSWER 103 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN

1993:463782 CAPLUS ΑN

119:63782 DN

OREF 119:11297a,11300a

Characterization of adenosine A2 receptors in bovine retinal membranes TΙ

ΑU

Blazynski, Christine; McIntosh, Helen Sch. Med., Washington Univ., St. Louis, MO, 63110, USA CS

Experimental Eye Research (1993), 56(5), 585-93 SO

CODEN: EXERA6; ISSN: 0014-4835

DT Journal

LΑ

AB

English Bovine retinal A2 receptors were characterized based on data obtained from both adenylate cyclase assays and radioligand binding studies. [3H]-5'-N-ethylcarboxamidoadenosine (NECA) in the presence of 10 nM cyclopentyladenosine (CPA, which selectively binds to A1 receptors) or [3H]-CGS 21680 were used to label the A2 binding sites. By using [3H]-NECA (plus CPA), two populations of binding sites, having Kds of 106 nM and 9.4 μ M, were determined [3H]-CGS 21680, a derivative of NECA which has been demonstrated to be highly selective for A2 receptors in brain synaptic membrane prepns. was more potent than NECA at the higher affinity population of A2 sites, and saturation anal. revealed the presence of both a high affinity site, Kd of 18 nM, and a lower affinity site having a Kd of 4.3 μM . The high affinity site labeled by [3H]-CGS 21680 corresponds to the A2a receptor. By using either radioligand, guanosine triphosphate-dependent shifts to a single population of binding sites were observed Despite the differences in affinities revealed by the two radioligands for the high affinity A2 site, both [3H]-CGS 21680 and [3H]-NECA were competitively displaced by increasing concns. of a variety of adenosine receptor agonists and antagonists, and exhibited an identical rank order of potency that is consistent with that reported for high affinity A2a receptors. Receptor-mediated modulation of adenylate cyclase activities in retinal synaptic membranes was also assessed, and while NECA or N6-methyladenosine elicited decreases in forskolin-activated cyclase activity at concns. between 0.1-50 nM, this inhibition was reversed, and enzyme stimulated by higher agonist concns. CGS 21680 elicited only a stimulation of either basal and forskolin-activated adenylate cyclase activities at concns. above 50 nM. The stimulatory modulation of adenylate cyclase at these concns. is consistent with mediation by the A2a and/or A2b receptors.

53296-10-9, CV1808

RN

CN

RL: BIOL (Biological study)
(adenosine A2 receptors affinity for, of eye retina membranes)
53296-10-9 CAPLUS
Adenosine, 2-(phenylamino)- (CA INDEX NAME)

Absolute stereochemistry.

OSC.G 12 THERE ARE 12 CAPLUS RECORDS THAT CITE THIS RECORD (12 CITINGS)

L6 ANSWER 104 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN

AN 1993:188505 CAPLUS

DN 118:188505

OREF 118:32315a,32318a

TI Effects of adenosine derivatives on human and rabbit platelet aggregation.

Correlation of adenosine receptor affinities and antiaggregatory activity

AU Dionisotti, Silvio; Zocchi, Cristina; Varani, Katia; Borea, Pier Andrea;

Ongini, Ennio

CS Res. Lab., Schering-Plough, S.p.A., Comazzo, I-20060, Italy

SO Naunyn-Schmiedeberg's Archives of Pharmacology (1992), 346(6), 673-6 CODEN: NSAPCC; ISSN: 0028-1298

DT Journal

LA English

The inhibitory effects of several adenosine analogs, including the AB A2-selective agonists 2-[p-(2-carboxyethyl)phenylethylamino]-5'-Nethylcarboxamidoadenosine (CGS 21680) and 2-hexynyl-5'-N-ethylcarboxamidoadenosine (2-hexynyl-NECA), were investigated in vitro on human and rabbit platelet aggregation. The compds. inhibited ADP-induced platelet aggregation over a wide range of potency. The rank order of activity was similar between the 2 species thus showing that the rabbit is a useful animal model for studying the effects of adenosine derivs. on platelet aggregation. 2-Hexynyl-NECA was the most potent adenosine compound of those currently available, having IC50 values of 0.10 and 0.07 μM in human and rabbit platelets, resp. Conversely, the A1 agonists R(-)-N6-(2-phenylisopropyl) adenosine, S(+)-N6-(2-phenylisopropyl) adenosine, and 2-chloro-N6-cyclopentyladenosine were the least potent compds. With IC50 values in the micromolar range. The potency of the compds. in inhibiting platelet aggregation was correlated with their affinity for A2 receptors as measured using [3H]CGS 21680 binding in rat brain striatum.

IT 53296-10-9, CV 1808

RL: BIOL (Biological study)

(blood platelet aggregation inhibition by, in human and rabbit, adenosine A2 receptor affinity in relation to)

RN 53296-10-9 CAPLUS

CN Adenosine, 2-(phenylamino)- (CA INDEX NAME)

Absolute stereochemistry.

OSC.G 24 THERE ARE 24 CAPLUS RECORDS THAT CITE THIS RECORD (24 CITINGS)

L6 ANSWER 105 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN

AN 1993:74085 CAPLUS

DN 118:74085

OREF 118:12831a,12834a

TI [3H]2-Phenylaminoadenosine ([3H]CV 1808) labels a novel adenosine receptor in rat brain

AU Cornfield, Linda J.; Hu, Shiling; Hurt, Stephen D.; Sills, Matthew A.

CS Pharm. Div., CIBA-GEIGY Corp., Summit, NJ, USA

SO Journal of Pharmacology and Experimental Therapeutics (1992), 263(2), 552-61

CODEN: JPETAB; ISSN: 0022-3565

DT Journal

LA English

After the radiolabeling of CV 1808, its binding characteristics were evaluated in rat striatal, cortical and hippocampal membranes. Using 5 nM AΒ [3H]CV 1808, unlabeled CV 1808 produced shallow inhibition curves in all three brain areas, with 61-75% of the binding displaying IC50 values of 16-24 nM, whereas the remaining 28-37% of binding had lower affinity (IC50 595-1130 nM). The A2-selective agonist CGS 21680 and the nonselective adenosine agonist 5'-N-ethylcarboxamidoadenosine displayed very low affinity (IC50 > 10 μ M). The A1-selective compound N6-cyclopentyladenosine inhibited only 28-44% of specific binding, with IC50 of 272-1750 nM. In contrast, the nonselective adenosine antagonist CGS 15943A inhibited specific binding by 48-64% (at 1 μM) with IC50 ranging 106-295 nM. Addnl., several novel adenosine analogs fully inhibited specific binding, producing multicomponent inhibition curves. Electrophysiol. studies in porcine coronary artery cells demonstrated that CV 1808, but not CGS 21680, 5'-N-ethylcarboxamidadenosine and N6-cyclopentyladenosine, activated potassium channels. Further, the CV 1808-induced activation was blocked by CGS 15943A. Thus, [3H]CV 1808 $\,$ binding consists of two components in rat brain a low-affinity site with Al-like characteristics, and a novel high-affinity site, designated as the A4 receptor, were potassium channel activation appears to be a functional correlate.

IT 53296-10-9, CV 1808 53296-10-9D, CV 1808, derivs., tritium-labeled

RL: BIOL (Biological study)

(adenosine receptor subtypes labeling with, in brain)

RN 53296-10-9 CAPLUS

CN Adenosine, 2-(phenylamino) - (CA INDEX NAME)

Absolute stereochemistry.

RN 53296-10-9 CAPLUS

CN Adenosine, 2-(phenylamino) - (CA INDEX NAME)

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OSC.G 26 THERE ARE 26 CAPLUS RECORDS THAT CITE THIS RECORD (26 CITINGS)
```

- L6 ANSWER 106 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN
- AN 1993:73788 CAPLUS
- DN 118:73788
- OREF 118:12763a,12766a
- TI Structure-activity relationships for 2-substituted adenosines at A1 and A2 adenosine receptors
- AU Daly, John W.; Padgett, William L.; Secunda, Sherrie I.; Thompson, Robert D.; Olsson, Ray A.
- CS Lab. Bioorg. Chem., Natl. Inst. Diabetes Dig. Kidney Dis., Bethesda, MD, USA
- SO Pharmacology (1993), 46(2), 91-100 CODEN: PHMGBN; ISSN: 0031-7012
- DT Journal
- LA English
- A series of 55 2-alkyloxy-, 2-aryloxy-, and 2-aralkyloxyadenosines was screened as inhibitors of the binding of [3H]R-phenyl-isopropyladenosine to A1 adenosine receptors in rat cerebral cortical membranes, as AB inhibitors of the binding of [3H]N-ethylcarboxyamidoadenosine to A2 adenosine receptors in rat striatal membranes, and as agonists at A2 adenosine receptors coupled to adenylate cyclase in rat pheochromocytoma PC12 cell membranes. The activities are consonant with a hydrophobic binding site in the A2 receptors at a distance from the 2-position of the adenine ring corresponding to a spacer chain of -O-CH2-CH2-. There is little lateral steric tolerance in the region occupied by the spacer chain. Interaction with the hydrophobic binding site is greatest in the 2-alkyloxy series for 2-cyclohexylethoxy-, 2-cyclohexylpropoxy- and 2-cyclohexylbutoxyadenosine and in the 2-aralkyloxy series for 2-phenylethoxy-, 2-(4-methylphenyl) ethoxy-, 2-(4-chlorophenyl) ethoxy-, and 2-naphthylethoxyadenosine. The affinities of the 2-substituted adenosines for the rat cerebral cortical A1 receptors are not as markedly altered by structural changes, and in almost all cases are 2-100-fold less than the affinity of the 2-substituted adenosines for the rat striatal A2 receptor. There is excellent correspondence of the present data on rat A2 receptors with reported potencies of these 2-substituted adenosines as coronary

vasodilators in guinea pig heart prepns. 50257-82-4 50257-84-6 50257-85-7 50257-89-1 50257-95-9 131865-78-6 131865-81-1 131865-82-2 131933-15-8 131933-17-0 131933-20-5 131933-26-1 131933-27-2 131973-26-7 137817-83-5 145747-85-9 137817-84-6 145747-86-0

145747-87-1

RL: PRP (Properties)

(purinergic receptor affinity of, structure in relation to)

- RN 50257-82-4 CAPLUS
- CN Adenosine, 2-phenoxy- (CA INDEX NAME)

Absolute stereochemistry.

RN 50257-84-6 CAPLUS

CN Adenosine, 2-butoxy- (9CI) (CA INDEX NAME)

RN 50257-85-7 CAPLUS

CN Adenosine, 2-(pentyloxy)- (CA INDEX NAME)

Absolute stereochemistry.

RN 50257-89-1 CAPLUS

CN Adenosine, 2-(2-hydroxyethoxy)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 50257-95-9 CAPLUS

CN Adenosine, 2-(hexyloxy)- (CA INDEX NAME)

Absolute stereochemistry.

RN 131865-78-6 CAPLUS

CN Adenosine, 2-(phenylmethoxy)- (CA INDEX NAME)

131865-81-1 CAPLUS RN

Adenosine, 2-(4-phenylbutoxy)- (CA INDEX NAME) CN

Absolute stereochemistry.

131865-82-2 CAPLUS

Adenosine, 2-[(5-phenylpentyl)oxy]- (CA INDEX NAME) CN

Absolute stereochemistry.

RN

131933-15-8 CAPLUS Adenosine, 2-(3-methylbutoxy)- (CA INDEX NAME) ${\tt CN}$

Absolute stereochemistry.

131933-17-0 CAPLUS RN

Adenosine, 2-(cyclohexylmethoxy) - (9CI) (CA INDEX NAME)

131933-20-5 CAPLUS RN

Adenosine, 2-(4-cyclohexylbutoxy)- (9CI) (CA INDEX NAME) CN

Absolute stereochemistry.

131933-26-1 CAPLUS

Adenosine, 2-(2-ethylbutoxy)- (9CI) (CA INDEX NAME) CN

Absolute stereochemistry.

RN

131933-27-2 CAPLUS Adenosine, 2-[(3-ethylpentyl)oxy]- (9CI) (CA INDEX NAME) ${\tt CN}$

Absolute stereochemistry.

131973-26-7 CAPLUS RN

Adenosine, 2-[(4-methylpentyl)oxy]- (9CI) (CA INDEX NAME)

RN 137817-83-5 CAPLUS

CN Adenosine, 2-[(2R)-2-phenylbutoxy]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 137817-84-6 CAPLUS

CN Adenosine, 2-[(2S)-2-phenylbutoxy]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 145747-85-9 CAPLUS

CN Adenosine, 2-[(3,6-dimethyl-6-heptenyl)oxy]-, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 145747-86-0 CAPLUS

CN Adenosine, 2-[(3,6-dimethyl-6-heptenyl)oxy]-, (R)- (9CI) (CA INDEX NAME)

145747-87-1 CAPLUS Adenosine, 2-[(3S)-3-phenylbutoxy]- (CA INDEX NAME)

Absolute stereochemistry.

THERE ARE 21 CAPLUS RECORDS THAT CITE THIS RECORD (21 CITINGS)

ANSWER 107 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN L6

1993:32762 CAPLUS AN

118:32762 DN

OREF 118:5811a,5814a

Cardiovascular selectivity of adenosine receptor agonists in anesthetized TΙ

ΑU Gerencer, R. Z.; Finegan, B. A.; Clanachan, A. S.

Dep. Pharmacol., Univ. Alberta, Edmonton, AB, T6G 2H7, Can. British Journal of Pharmacology (1992), 107(4), 1048-56 CS

SO

CODEN: BJPCBM; ISSN: 0007-1188

DT Journal

LA English AB

The relevance of adenosine (Ado) receptor classification obtained from in vitro methods to the cardiovascular actions of Ado agonists in vivo was studied. The cardiovascular effects of AMP, N6-cyclohexyladenosine (CHA, 400-fold A1-selective), 5'-N-ethylcarboxamidoadenosine (NECA, A1 \approx A2), and 2-phenylaminoadenosine (PAA, 5-fold A2-selective) were compared in open-chest, fentanyl-pentobarbitone anesthetized dogs. Graded doses of CHA (10 to 1000 μ g/kg), NECA (0.5 to 100 μ g/kg), or PAA (0.1 to 20 $\mu g/kg$) were administered i.v. and changes in hemodynamics and myocardial contractility were assessed 10 min following each dose. The effects of graded infusions of AMP (200 to 1000 $\mu\text{g/kg}\cdot\text{min})$ were also evaluated. AMP and the Ado analogs (NECA > PAA > CHA) increased the systemic vascular conductance index (SVCI) in a dose-dependent manner and reduced the mean arterial pressure (MAP). At doses causing similar increases in SCI, the agonists caused similar reflex increases in heart rate (HR) and cardiac index (CI) and decreases in AV conduction interval (AVi), and increased coronary vascular conductance (CVC). After cardiac autonomic blockade with atropine (0.2 mg/kg) and propranolol (1 mg/kg), AMP, CHA, and PAA still increased SVCI and CVC and decreased MAP. CHA and PAA had no marked effects on HR, CI, or AVi. As in the absence of cardiac autonomic blockade, equieffective vasodilator doses of CHA and PAA had identical effects on CVC, CI, and AVi. The myocardial contractility, as assessed by Emax, was stimulated by AMP in control animals. Following cardiac autonomic blockade, PAA increased the contractility while AMP and CHA had no effects. Despite marked differences in receptor selectivity in vitro, no marked differences between the actions of these Al- and A2-selective Ado receptor agonists on the cardiovascular system in vivo were apparent. Difficulties therefore exist in the application of in vitro Ado receptor selectivity data to the prediction of the cardiovascular effects of Ado agonists in vivo.

53296-10-9, 2-Phenylaminoadenosine

RL: PRP (Properties)

(cardiovascular effects of, in vitro and in vivo correlation of)

RN 53296-10-9 CAPLUS

CN Adenosine, 2-(phenylamino)- (CA INDEX NAME)

Absolute stereochemistry.

THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (2 CITINGS) 2 OSC.G

ANSWER 108 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN

1992:658206 CAPLUS AN

117:258206 DN

OREF 117:44527a,44530a

TΙ Stable solid 2-octynyladenosine

Morozumi, Manami; Kumagai, Masao; Yamaguchi, Toyofumi ΙN

Yamasa Shoyu K. K., Japan PA

SO Eur. Pat. Appl., 22 pp.

CODEN: EPXXDW

DT Patent

LA English

FAN.CNT 1

| | PA | TENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|----|---------------|----------|-------------|-------------------------|------------|
| PI | EP | 499185 | A1 | 19920819 | EP 1992-102210 | 19920210 |
| | EP | 499185 | В1 | 19950517 | | |
| | | R: AT, BE, CH | , DE, DK | , ES, FR, 0 | GB, GR, IT, LI, LU, MC, | NL, PT, SE |
| | JΡ | 05194579 | A | 19930803 | JP 1991-40894 | 19910212 |
| | JΡ | 10081697 | A | 19980331 | JP 1997-281349 | 19910212 |
| | JΡ | 3040742 | В2 | 20000515 | | |
| | CA | 2060865 | A1 | 19920813 | CA 1992-2060865 | 19920207 |
| | CA | 2060865 | С | 20000516 | | |
| | ES | 2073793 | Т3 | 19950816 | ES 1992-102210 | 19920210 |
| | US | 5939543 | A | 19990817 | US 1992-833718 | 19920211 |
| PRAI | JΡ | 1991-40894 | A | 19910212 | | |

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

Stable low-moisture 2-octynylandenosine (I) (\leq 3% moisture) is prepared Another stable form consists of I deposited from μm EtOH solution containing <1% water. I-H2O was vacuum-dried with P2O5, at 80°, to 0.93% water content. The product showed only 0.8% decomposition when stored for 30 days at 25° and 30% relative humidity. I is an antihypertensive (no data).

137896-07-2

RL: BSU (Biological study, unclassified); BIOL (Biological study) (stable solid form of, low-moisture)

137896-07-2 CAPLUS

Adenosine, 2-octyl- (9CI) (CA INDEX NAME)

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OSC.G 1
                THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)
      ANSWER 109 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN
AΝ
      1992:483920 CAPLUS
DN
      117:83920
OREF 117:14479a,14482a
      Relative agonist potencies of C2-substituted analogs of adenosine:
      evidence for adenosine A2B receptors in the guinea pig aorta
ΑU
      Martin, Pauline L.
      Dep. Pharmacol., Whitby Res., Inc., Richmond, VA, 23220, USA European Journal of Pharmacology (1992), 216(2), 235-42
CS
SO
      CODEN: EJPHAZ; ISSN: 0014-2999
DT
      Journal
LΑ
      English
      Nine C2-substituted adenosine analogs that are potent and selective for the A2-adenosine receptor were tested for their ability to induce
AΒ
      relaxations of the guinea pig aorta. Compds. tested were
      2-phenylethoxyadenosine (PEA), 2-phenylethoxy-5'-N-ethylcarboxyamidoadenosine (PENECA), 2-cyclohexylethoxyadenosine (CEA), 2-fluorophenylethoxyadenosine (FPEA), 2-methoxyphenylethoxyadenosine
      (MPEA), 2-naphthylethoxyadenosine (NEA), 2-phenylaminoadenosine (CV1808),
      2-phenylethylaminoadenosine (PEAA), and
      2-carboxyethylphenethylamino-5'-N-ethylcarboxamidoadenosine (CGS21680).
      The responses to these agents were compared with those to three standard
      adenosine receptor agonists, 5'-N-ethylcarboxamidoadenosine (NECA), N6-cyclohexyladenosine (CHA) and R-N6-phenylisopropyladenosine (R-PIA).
      The C2-ethoxyadenosine analogs were 30-140-fold less potent than NECA and
      the C2-amino-substituted analogs were 250 to 1000-fold less potent than
      NECA at inducing relaxations of the guinea pig aorta. All of the analogs
      were also less potent than the Al-selective agonist R-PIA. However, only
      responses to NECA were competitively antagonized by the non-selective adenosine receptor antagonist 8-phenyltheophylline (8-PT), pKB = 6.83.
      Thus, the C2-substituted analogs produce relaxations of the guinea pig
      aorta through a combination of actions at A2-adenosine receptors and at
      xanthine resistant sites. The lack of potency of these analogs at
      activating the xanthine sensitive A2-receptors in the guinea pig aorta
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suggests that these adenosine receptors may be of the A2B-subtype.

(aorta relaxation by, purinergic receptor subtype in)

Adenosine, 2-(phenylamino)- (CA INDEX NAME)

Absolute stereochemistry.

RN

53296-10-9, CV-1808

53296-10-9 CAPLUS

RL: BIOL (Biological study)

PhNH N R R O OH

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OSC.G
               THERE ARE 34 CAPLUS RECORDS THAT CITE THIS RECORD (34 CITINGS)
T.6
     ANSWER 110 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN
     1992:440341 CAPLUS
AN
     117:40341
OREF 117:6967a,6970a
     Effect of adenosine analogs on the expression of opiate withdrawal in rats
TT
ΑU
     Dionyssopoulos, Tim; Hope, Wendy; Coupar, Ian M.
     Sch. Pharmacol., Victorian Coll. Pharm., Parkville, 3052, Australia Pharmacology, Biochemistry and Behavior (1992), 42(2), 201-6
CS
SO
     CODEN: PBBHAU; ISSN: 0091-3057
DT
     Journal
LA
     English
     The adenosine A1 receptor agonist N6-[(R)-1-methyl-2-phenylethyl] adenosine
     (R-PIA), the A2 agonist 2-(phenylamino)adenosine (CV 1808), the
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nonselective A1, A2 agonist adenosine-5'-ethylcarboxamide (NECA), and the

lpha2-adrenoceptor agonist clonidine were screened (each at 30, 100, and 300 µg/kg, s.c.) for their ability to alter naloxone-precipitated withdrawal signs in morphine-dependent rats. The results indicate that there is convergent dependence involving opioid and adenosine $\mathtt{Al}\ \mathtt{receptors}$ on those effects expressed by withdrawal diarrhea, paw-shakes, teeth-chattering, body-shakes, and jumping. Further, dependence expressed by body-shakes involves convergence involving A1 receptors, as well as $\alpha2\text{--}adrenoceptors;$ while A1 receptors are involved in dependence expressed by jumping, stimulation of $\alpha 2$ -adrenoceptors augments this sign. Adenosine analogs may be of clin. value for detoxification of opiate addicts. 53296-10-9, CV 1808

TΤ

RL: BIOL (Biological study)

(opiate withdrawal behaviors response to)

RN 53296-10-9 CAPLUS

Adenosine, 2-(phenylamino)- (CA INDEX NAME) CN

Absolute stereochemistry.

THERE ARE 16 CAPLUS RECORDS THAT CITE THIS RECORD (16 CITINGS) OSC.G 16

ANSWER 111 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN

1992:440225 CAPLUS ΑN

117:40225 DN

OREF 117:6935a,6938a

Characterization of human striatal A2 adenosine receptors using radioligand binding and photoaffinity labeling

ΑIJ Ji, Xiao Duo; Stiles, Gary L.; Van Galen, Philip J. M.; Jacobson, Kenneth

CS Lab. Bioorg. Chem., Natl. Inst. Diabet. Digest. Dis. Kidney Dis., Bethesda, MD, 20892, USA

Journal of Receptor Research (1992), 12(2), 149-69 SO CODEN: JRERDM; ISSN: 0197-5110

DT Journal

English LA

The adenosine agonist [3H]CGS21680 AB

(2-[4-[[2-carboxethyl]phenyl]ethylamino]-5'-N-ethylcarboxamidoadenosine) bound to A2 receptors in human striatal membranes with a kd of 17.8 nM and a Bmax of 313 fmol/mg protein. The addition of 100 μM GTP diminished both the affinity of agonist radioligand for A2 adenosine binding sites and the total binding, resulting in kd and Bmax values of 28.6 nM and 185 fmol/mg of protein. Adenosine ligands competed for [3H]CGS21680 with the expected potency order. The adenosine antagonist [3H]XAC (8-[4-[[[((2-aminoethyl)-amino)carbonyl]methyl]oxy]phenyl]-1,3dipropylxanthine), although Al-selective in the rat, binds to human striatal A2 receptors with high affinity. 25 NM CPX (8-cyclopentyl-1,3-dipropylxanthine), an A1-selective antagonist, was added to the incubation medium and effectively eliminated 91% of [3H]XAC (1 nM) binding to human A1 receptors, yet preserved 90% of binding to A2 receptors. [3H] XAC exhibited saturable, specific binding (50% of total) to $\widehat{A2}$ sites with a kd of 2.98 nM and a Bmax of 0.71 pmol/mg protein (25°, non-specific binding defined with 100 μM NECA). The potency order for antagonists against 1 nM [3H]XAC was CGS15943A > XAC = PD115,199 > PAPA-XAC > CPX > HTQZ = XCC = CP-66,713 > theophylline = caffeine, indicative of an A2-type binding site. A2a-receptors were found to be present in the human cortex, albeit at a much lower ${\tt d.}$ than in the striatum. Photoaffinity labeling using 125I-PAPA-APEC revealed a mol. weight of 45 K, but proteolytic cleavage was observed, resulting in fragments of MW 43 K and 37 K. In the absence of proteolytic inhibitors the 37 K $\,$ fragment, which still bound 125I-PAPA-APEC, was predominant.

53296-10-9, CV1808

RL: BIOL (Biological study)
(CGS21680 binding to human striatal adenosine A2 receptors response to)
RN 53296-10-9 CAPLUS
CN Adenosine, 2-(phenylamino)- (CA INDEX NAME)

Absolute stereochemistry.

OSC.G 14 THERE ARE 14 CAPLUS RECORDS THAT CITE THIS RECORD (14 CITINGS)

L6 ANSWER 112 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN

AN 1992:121533 CAPLUS

DN 116:121533

OREF 116:20337a,20340a

TI Adenosine receptor-induced cAMP changes in D384 astrocytoma cells and the effect of bradykinin thereon

AU Altiok, Nedret; Balmforth, A. J.; Fredholm, B. B.

CS Dep. Pharmacol., Karolinska Inst., Stockholm, S-104 01, Swed.

SO Acta Physiologica Scandinavica (1992), 144(1), 55-63 CODEN: APSCAX; ISSN: 0001-6772

DT Journal

LA English

In human D384 astrocytoma cells, cAMP accumulation can be conveniently studied after labeling of the ATP pool (15 fmol/cell) with [3H]adenine. In this study, adenosine had a biphasic effect on cAMP accumulation, which was scarcely altered by blocking adenosine uptake and metabolism Low concns. of adenosine led to an inhibition of cAMP accumulation, and higher concns. led to stimulation. No effect of adenosine on cAMP was observed unless phosphodiesterase was inhibited by rolipram. The A1 receptor antagonist dipyridamole-1,3-dipropyl-8-cyclopentyl xanthine attenuated the inhibitory phase of adenosine response, and enhanced the cAMP accumulation induced by adenosine analogs. The cAMP accumulation was stimulated by NECA > ADO > CGS 21680 > CV 1808 > N6-cyclopentyladenosine \geq N6-cyclohexyladenosine, indicating mediation by A2 receptors. The stimulatory effect of NECA was much more effectively blocked by the combined A1 and A2 receptor antagonist CGS 15943 (KB 4 nmol/L) than by the Al antagonist DPCPX (KB 110 nmol/L). Treatment of the cells with pertussis toxin (0.2 μ g/mL for 2.5 h) potentiated the cAMP response to adenosine analogs. The cAMP response to NECA was enhanced by the protein kinase C activator phorbol dibutyrate even after pertussis toxin treatment. By contrast, nanomolar concns. of bradykinin, which increases Ca2+-levels and protein kinase C activity in D384 cells, reduced NECA-induced cAMP accumulation in control and pertussis toxin-treated cells. Thus, D384 cells possess both A1 and A2 adenosine receptors influencing cAMP in opposite directions. A2 receptor-mediated cAMP accumulation can be stimulated by activating protein kinase C and inhibited by raising Ca2+. Neither the effects of protein kinase C activation nor those of bradykinin required pertussis toxin-sensitive G-proteins.

IT 53296-10-9, CV 1808

RL: BIOL (Biological study)

(cAMP accumulation response to, in astrocytoma cell, mechanism for)

RN 53296-10-9 CAPLUS

CN Adenosine, 2-(phenylamino) - (CA INDEX NAME)

OSC.G 14 THERE ARE 14 CAPLUS RECORDS THAT CITE THIS RECORD (14 CITINGS)

T.6 ANSWER 113 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN

1992:76245 CAPLUS AN

DN 116:76245

OREF 116:12755a,12758a

Receptor binding at two different temperatures to discriminate agonist and TΤ antagonist behavior of adenosine Al receptor ligands in rat brain

ΑU Borea, Pier Andrea; Varani, Katia; Malaguti, Valeria; Gilli, Gastone

CS

Ist. Farmacol., Univ. Ferrara, Ferrara, 44100, Italy Journal of Pharmacy and Pharmacology (1991), 43(12), 866-8 SO

CODEN: JPPMAB; ISSN: 0022-3573

DT Journal

LAEnglish

The inhibitory binding consts. Ki, at the adenosine Al receptor in rat AΒ brain have been measured at 0 and 25° for 25 typical ligands. The Ki ratios at the 2 temps. are greater and smaller than unity for adenosine agonists and xanthine antagonists, resp. These results suggest that 2-temperature measurements of in-vitro Ki consts. represent a simple method of discriminating between in-vivo agonistic and antagonistic behavior of A1 adenosine receptor ligands.

53296-10-9, 2-Phenylaminoadenosine

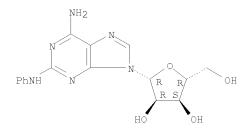
RL: BIOL (Biological study)

(receptor binding of, in brain, temperature effect on)

RN 53296-10-9 CAPLUS

Adenosine, 2-(phenylamino)- (CA INDEX NAME)

Absolute stereochemistry.



OSC.G THERE ARE 6 CAPLUS RECORDS THAT CITE THIS RECORD (6 CITINGS)

ANSWER 114 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN

1992:59857 CAPLUS

116:59857

OREF 116:10376h,10377a

ТΤ Nucleosides and nucleotides. 103. 2-Alkynyladenosines: a novel class of selective adenosine A2 receptor agonists with potent antihypertensive

Matsuda, Akira; Shinozaki, Misao; Yamaguchi, Toyofumi; Homma, Hiroshi; Nomoto, Rie; Miyasaka, Tadashi; Watanabe, Yohko; Abiru, Toichi ΑU

CS Fac. Pharm. Sci., Hokkaido Univ., Sapporo, 060, Japan

Journal of Medicinal Chemistry (1992), 35(2), 241-52 CODEN: JMCMAR; ISSN: 0022-2623

DT Journal

LA English

CASREACT 116:59857 OS

GΙ

AΒ The synthesis and receptor-binding activities at A1 and A2 adenosine receptors for a series of 2-alkynyladenosines, are described. The Pd-catalyzed cross-coupling reaction of 2-iodoadenosine (I; R = iodo) with various terminal alkynes in the presence of bis(triphenylphosphine)palladium dichloride and CuI in DMF containing NEt3 gives 2-alkynyladenosines I [R = C.tplbond.CR2,R2 = Et, Pr, Bu, pentyl, hexyl, heptyl, octyl, decyl, dodecyl, tetradecyl, hexadecyl, CH2OH, CH2CH2OH, CH2OMe, CH2O(CH2)3Me]. An economical synthetic method for the preparation of $9-(2,3,5-\text{tri-O-acetyl-1-}\beta-D-\text{ribofuranosyl})-6-\text{chloro-}2-\text{iodopurine (II; R2 = iodo), which is a precursor of I (R = iodo) is also$ included. Several transformation reactions of 2-(1-octyn-1-yl)adenosine I [R = C.tplbond.C (CH2-Me] and 2-(1-ethyn-1-yl) adenosine I (R = C.tplbond.C (CH2-Me)C.tplbond.CH) and a similar cross-coupling reaction of 6-chloropurine derivative II (R2 = H) and 8-bromoadenosine III with 1-octyne are also reported. Many of these 2-alkynyladenosines tested for A1 and A2 adenosine receptor binding activities in rat brain are selective for the A2 adenosine receptor. Among them, 2-(1-hexyn-1-yl) adenosine has the highest affinity for both A1 and A2 receptors with Ki values of 126.5 and 2.8 nM, resp. The structure-activity relationship of this series of compds. including 6- or 8-alkynylpurine nucleosides and 2-alkyl- and 2-alkenyladenosines is discussed in terms of potency at both receptor subtypes. Addnl., how hypotensive activity and heart rate decrease brought on by I (R = C.tplbond.CR3) and some other compds. with spontaneously hypertensive rats are proportional to the order of the potency to both A1 and A2 binding affinities, are described. Thus, 2-alkynyladenosines are interesting and promising as antihypertensive agents that should be considered for further detailed preclin. evaluation. 137896-07-2P

RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of, as adenosine receptor agonist)

RN 137896-07-2 CAPLUS

CN Adenosine, 2-octyl- (9CI) (CA INDEX NAME)

Me (CH₂)
$$7$$
 N N R R N OH

OSC.G 98 THERE ARE 98 CAPLUS RECORDS THAT CITE THIS RECORD (98 CITINGS)

L6 ANSWER 115 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN

AN 1992:34585 CAPLUS

DN 116:34585

OREF 116:5737a,5740a

TI Methods for treatment of alcohol intoxication and dependence

IN Diamond, Ivan F.; Gordon, Adrienne S.

PA USA

SO Can. Pat. Appl., 24 pp.

CODEN: CPXXEB

DT Patent

LA English

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|----|------------|------|----------|-----------------|----------|
| | | | | | |
| PI | CA 2029581 | A1 | 19910510 | CA 1990-2029581 | 19901108 |
| | US 5069895 | A | 19911203 | US 1989-434066 | 19891109 |
| | EP 431758 | A2 | 19910612 | EP 1990-312252 | 19901108 |
| | EP 431758 | A3 | 19920115 | | |

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE PRAI US 1989-434066 A 19891109

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

ABC.-related disorders are treated by the administration of adenosine antagonists and adenosine agonists to a host. Adenosine antagonists are used to inhibit both acute intoxication and chronic dependence by administering prior to alc. consumption. The symptoms associated with alc. withdrawal syndrome may be treated by administering adenosine agonists which reduce the physiol. dependence on alc. during the withdrawal period. Acute exposure to EtOH increased the concentration of extracellular adenosine which then activated adenosine A2 receptors to increase intracellular cAMP levels. Accumulation of extracellular adenosine was required for the development of chronic EtOH-induced heterologous desensitization of receptor-stimulated cAMP production Extracellular adenosine accumulation was greater in lymphocytes of alcoholics than in lymphocytes of nonalcoholics. After chronic exposure to 100 mM EtOH for 24 h, rechallenge with EtOH did not increase extracellular adenosine in lymphocytes from nonalcoholics whereas it caused a 73% increase in lymphocytes from alcoholics.

IT 53296-10-9

RL: BIOL (Biological study)

(as adenosine agonist, for ethanol withdrawal syndrome treatment)

RN 53296-10-9 CAPLUS

CN Adenosine, 2-(phenylamino) - (CA INDEX NAME)

Absolute stereochemistry.

OSC.G 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (3 CITINGS)

L6 ANSWER 116 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN

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AN 1992:34525 CAPLUS
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DN 116:34525

OREF 116:5729a,5732a

TI Comparative pharmacology of the nitrobenzylthioguanosine-sensitive and -resistant nucleoside transport mechanisms of Ehrlich ascites tumor cells AU Hammond, James R.

CS Dep. Pharmacol. Toxicol., Univ. West. Ontario, London, ON, N6A 5C1, Can.

SO Journal of Pharmacology and Experimental Therapeutics (1991), 259(2), 799-807

CODEN: JPETAB; ISSN: 0022-3565

DT Journal

LA English

AΒ A variety of nucleoside transport inhibitors and substrates were compared for their capacities to inhibit the zero-trans influx of [3H]uridine in Ehrlich ascites tumor cells. ATP-depleted cells accumulated [3H]uridine primarily by facilitated diffusion $(\bar{V}max = 16 \text{ pmol/s/}\mu\text{L} \text{ cell water})$ via both nitrobenzylthioguanosine (NBTGR)-sensitive (IC50 = 0.53 nM, 100 μ M [3H]uridine) and NBTGR-resistant (IC50 = 71 μ M, 100 μ M [3H]uridine) mechanisms with uridine KM ests. of 99 and 284 μM , resp. Dilazep also distinguished between the transporter subtypes with IC50 values of 14 nM and 1.8 $\mu\text{M}\text{,}$ resp., for inhibiting 100 μM [3H]uridine influx. Incubation of cells with 50 mM NBTGR allowed the selective study of inhibitor effects on NBTGR-resistant [3H]uridine influx. Dipyridamole, cyclopentyladenosine, 2-phenylaminoadenosine, etoposide, teniposide, diazepam, chlordiazepoxide, triazolam and the lidoflazine derivative R75231, were less potent as inhibitors of NBTGR-resistant influx, when compared with their capacities to inhibit the total mediated influx [3H]uridine. In contrast, 2-fluoroadenosine, 2-chloroadenosine, 5'-N-ethylcarboxamidoadenosine and soluflazine were relatively more effective as inhibitors of the NBTGR-resistant component. Mioflazine, a compound related to both soluflazine and R75231, did not distinguish between transporter subtypes. The NBTGR-resistant transporter also had a distinctive substrate specificity; guanosine, 2'-deoxyguanosine, cytidine and 2'-deoxycytidine were less effective as inhibitors of NBTGR-resistant [3H] uridine influx. These results show that the NBTGR-sensitive and -resistant nucleoside transporters of Ehrlich cells have distinctive pharmacol. profiles that extend beyond the well-characterized differential affinities for dilazep and S6-thiopurine derivs., and that relatively minor modifications in mol. structure have a significant impact on transporter selectivity. Further structure activity studies are clearly warranted, and may lead to the development of more selective inhibitors for the NBTGR-resistant nucleoside transport system.

IT 53296-10-9, CV-1808

RL: BIOL (Biological study)

(nucleoside transport system response to, in Ehrlich ascites tumor cells, nitrobenzylthioguanosine sensitivity in)

RN 53296-10-9 CAPLUS

CN Adenosine, 2-(phenylamino)- (CA INDEX NAME)

Absolute stereochemistry.

OSC.G 19 THERE ARE 19 CAPLUS RECORDS THAT CITE THIS RECORD (20 CITINGS)

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L6 ANSWER 117 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN
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AN 1992:6922 CAPLUS

DN 116:6922

OREF 116:1370h,1371a

TI Preparation of 2-aralkoxy- and 2-alkoxyadenosine derivatives as coronary vasodilators and antihypertensive agents

IN Olsson, Ray A.; Thompson, Robert D.

PA Whitby Research, Inc., USA

SO PCT Int. Appl., 31 pp. CODEN: PIXXD2 DT Patent. T.A English FAN.CNT 1 PATENT NO. KIND APPLICATION NO. DATE DATE PТ WO 9113082 A1 19910905 WO 1991-US1023 19910214 W: AU, BB, BG, BR, CA, FI, HU, JP, KP, KR, LK, MC, MG, MW, NO, RO, SD, SU RW: AT, BE, BF, BJ, CF, CG, CH, CM, DE, DK, ES, FR, GA, GB, GR, IT, LU, ML, MR, NL, SE, SN, TD, TG US 5140015 Α 19920818 US 1990-482282 19900220 AU 9173255 19910918 AU 1991-73255 Α 19910214 AU 645784 В2 19940127 EP 515514 EP 1991-904813 19921202 A1 19910214 EP 515514 В1 20000830 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE JP 05506436 Т 19930922 JP 1991-505571 19910214 JP 3160611 B2 20010425 AT 195946 Τ 20000915 AT 1991-904813 19910214 ES 2150903 Т3 20001216 ES 1991-904813 19910214 CA 2074853 19940130 CA 1992-2074853 19920729 Α1 CA 2074853 C. 20050607 US 36494 Ε 20000111 US 1993-98180 19930726 PRAI US 1990-482282 Α 19900220 WO 1991-US1023 19910214 Α ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT OS MARPAT 116:6922 GΙ

Title compds. I [R1 = (substituted) C1-6 hydrocarbyl, cyclic hydrocarbyl, AB (substituted) Ph, (substituted) thienyl, (substituted) naphthyl, (substituted) indoly1, etc.; R2 = (hydroxy) C1-4 hydrocarby1; X = 2H or 0;B = O, N; with provisos] were prepared as adenosine A2 receptor agonists useful as coronary vasodilators and antihypertensives. Thus, n-BuLi in hexanes was added to a solution of 4-FlC6H4(CH2)2OH in THF at 10°. The solution was stirred 15 min at room temperature, then 2-chloro-2',3'-0-(ethoxymethylidene)adenosine was added and the mixture was refluxed 4 days. The resulting product was deprotected by HOAc hydrolysis to give 2-[2-(4-fluorophenyl)ethoxy]adenosine (II). II at 0.9 nM gave a half-maximal increase in coronary blood flow in guinea pigs vs. 49.7 nM for adenosine. 131865-78-6P 131865-81-1P 137817-83-5P 137817-84-6P ΙT 131865-82-2P RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of, as adenosine A2 receptor agonists) RN 131865-78-6 CAPLUS

CN Adenosine, 2-(phenylmethoxy)- (CA INDEX NAME)

RN 131865-81-1 CAPLUS

CN Adenosine, 2-(4-phenylbutoxy)- (CA INDEX NAME)

Absolute stereochemistry.

RN 131865-82-2 CAPLUS

CN Adenosine, 2-[(5-phenylpentyl)oxy]- (CA INDEX NAME)

Absolute stereochemistry.

RN 137817-83-5 CAPLUS

CN Adenosine, 2-[(2R)-2-phenylbutoxy]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 137817-84-6 CAPLUS

CN Adenosine, 2-[(2S)-2-phenylbutoxy]- (9CI) (CA INDEX NAME)

OSC.G 6 THERE ARE 6 CAPLUS RECORDS THAT CITE THIS RECORD (7 CITINGS)
RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 118 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN

AN 1992:6886 CAPLUS

DN 116:6886

OREF 116:1363a,1366a

TI An efficient synthesis of 2-(phenylamino)adenosine [CV-1808], an adenosine A2 receptor selective agonist

AU Trivedi, Bharat K.

CS Dep. Chem., Warner-Lambert/Parke-Davis Pharm. Res. Div., Ann Arbor, MI, 48105, USA

SO Nucleic Acid Chem. (1991), 264-8. Editor(s): Townsend, Leroy B.; Tipson, R. Stuart. Publisher: Wiley, New York, N. Y. CODEN: 39GCA6

DT Conference

LA English

OS CASREACT 116:6886

AB A five-step process for synthesizing title CV-1808 from com. available guanosine is reported. A key step is the conversion of guanosine 2',3',5'-triacetate into 2-bromoinosine 2',3',5'-triacetate by using CHBr3 and an alkyl nitrite.

IT 53296-10-9P

RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of)

RN 53296-10-9 CAPLUS

CN Adenosine, 2-(phenylamino) - (CA INDEX NAME)

Absolute stereochemistry.

L6 ANSWER 119 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN

AN 1991:680484 CAPLUS

DN 115:280484

OREF 115:47683a,47686a

TI Preparation of 8-hydroxy-2',3',-dideoxyadenosine as an antiviral

IN Nair, Vasu; Buenger, Greg S.

PA University of Iowa Research Foundation, USA

SO U.S., 6 pp.

CODEN: USXXAM

DT Patent

LA English

FAN.CNT 1

| FAN.CNI I | | | | | | |
|---------------------|------|----------|-----------------|----------|--|--|
| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE | | |
| | | | | | | |
| PI US 5013829 | A | 19910507 | US 1989-343334 | 19890426 | | |
| PRAI US 1989-343334 | | 19890426 | | | | |

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

GΙ

AB Many intermediates [I; R1, R2 = cyano, H; COHN2, H; Et, H, H, OMe; etc.] for the title compound [I; R1 = H, R2 = OH] (II) stable against deamination and hydrolytic cleavage of the glycosidic bond, an antiviral especially useful for the treatment of AIDS (no data) were prepared E.g., a solution of 8-bromo-2'-deoxyadenosine in MeOH containing MeONa was refluxed for 20 to give 55% 2'-deoxy-8-methoxyadenosine, which was converted to 2',3'-dideoxy-8-methoxyadenosine via formation of 2'-deoxy-3'-O-(1-imidazolylthiocarbonyl)-5'-O-(tert-butyldimethylsilyl)adenosine, deoxygenation, and desilylation (detailed procedures not given). The conversion into II is not illustrated.

IT 79936-11-1P
RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of, as intermediate for stable antivirals)

CN Adenosine, 2-cyano- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

OSC.G 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (2 CITINGS)
RE.CNT 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 120 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN

AN 1991:652834 CAPLUS

DN 115:252834

OREF 115:42921a,42924a

- TI Cardiovascular actions of adenosines, but not adenosine receptors, differ in rat and quinea pig
- AU Ueeda, Masayuki; Thompson, Robert D.; Padgett, William L.; Secunda,
- Sherrie; Daly, John W.; Olsson, Ray A.
 CS Dep. Intern. Med. Biochem. Mol. Biol., Univ. South Florida, Tampa, FL, 33612, USA
- SO Life Sciences (1991), 49(18), 1351-8 CODEN: LIFSAK; ISSN: 0024-3205
- DT Journal
- LA English
- The structure-activity relationships of 16 analogs at the A1 and A2 adenosine receptors (A1AR, A2AR) of rat and guinea pig were compared. Radioligand binding studies revealed no marked differences in the affinities of each analog at the A2AR of brain cortex or the A2AR of brain striatum. Bioassay employing Langendorff heart prepns. showed that the guinea pig is more sensitive than the rat to A1AR-mediated slowing of conduction through the atrioventricular node and, in some instances, to A2AR-mediated coronary vasodilation. This difference could reflect factors such as receptor d. or efficacy of coupling to effector systems.

10/598,520

50257-82-4 50257-89-1 50257-95-9, 2-Hexyloxyadenosine 53296-10-9 131865-78-6 131933-17-0 RL: BIOL (Biological study) (brain adenosine A1 and A2 receptors binding of and cardiovascular action of, in guinea pig and rat) 50257-82-4 CAPLUS Adenosine, 2-phenoxy- (CA INDEX NAME) RN CN

Absolute stereochemistry.

RN 50257-89-1 CAPLUS

Adenosine, 2-(2-hydroxyethoxy)- (9CI) (CA INDEX NAME) CN

Absolute stereochemistry.

50257-95-9 CAPLUS

Adenosine, 2-(hexyloxy)- (CA INDEX NAME)

Absolute stereochemistry.

53296-10-9 CAPLUS Adenosine, 2-(phenylamino)- (CA INDEX NAME) CN

Absolute stereochemistry.

McIntosh

10/598,520

RN 131865-78-6 CAPLUS

CN Adenosine, 2-(phenylmethoxy)- (CA INDEX NAME)

Absolute stereochemistry.

RN 131933-17-0 CAPLUS

CN Adenosine, 2-(cyclohexylmethoxy)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

OSC.G 6 THERE ARE 6 CAPLUS RECORDS THAT CITE THIS RECORD (6 CITINGS)

L6 ANSWER 121 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN

AN 1991:651461 CAPLUS

DN 115:251461

OREF 115:42649a,42652a

TI Modulation of [3H]nitrobenzylthioinosine binding kinetics

AU Hammond, James R.

CS Dep. Pharmacol. Toxicol., Univ. West. Ontario, London, ON, N6A 5C1, Can.

SO Nucleosides & Nucleotides (1991), 10(5), 1103-6 CODEN: NUNUD5; ISSN: 0732-8311

DT Journal

LA English

AB Inhibitors and substrates of the nucleoside transporter of Ehrlich cell membrane were tested for their effects on the kinetics of [3H]nitrobenzylthioinosine binding. Results are discussed in terms of a distinct site mediating the allosteric modulation of

[3H]nitrobenzylthioinosine-binding affinity.

IT 53296-10-9, CV-1808

RL: ANST (Analytical study)

(nitrobenzylthioinosine binding kinetics in mammalian cell membrane response to)

RN 53296-10-9 CAPLUS

CN Adenosine, 2-(phenylamino)- (CA INDEX NAME)

OSC.G 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

- ANSWER 122 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN
- 1991:624462 CAPLUS AΝ
- DN 115:224462
- OREF 115:38075a,38078a
- Adenosine and ATP produce vasoconstriction in the feline pulmonary TΙ vascular bed by different mechanisms
- Neely, Constance Fisher; Haile, Daniel M.; Cahill, Bruce E.; Kadowitz, ΑU Philip J.
- CS Sch. Med., Univ. Pennsylvania, Philadelphia, PA, 19104, USA
- Journal of Pharmacology and Experimental Therapeutics (1991), 258(3), SO 753-61
 - CODEN: JPETAB; ISSN: 0022-3565
- DT Journal
- English LΑ
- AB Adenosine and ATP produce dose- and tone-dependent responses in the feline pulmonary vascular (PV) bed. The mechanisms mediating vasoconstrictor (VC) responses to adenosine and ATP in the intact-chest, spontaneously breathing cats under conditions of controlled blood flow and constant left atrial pressure were studied. The order of potency of adenosine receptor agonists to produce VC in the PV bed was the selective adenosine A1 receptor agonist R-phenylisopropyladenosine > the mixed A1, A2 receptor agonist adenosine > the selective adenosine A2 receptor agonist 2-phenylaminoadenosine. The dose-related increase in lobar arterial pressure in response to adenosine was blocked by the adenosine (P1) receptor antagonist BWA1433U, the cyclooxygenase inhibitor meclofenamate, and the TXA2 receptor antagonist SQ29548. The order of potency of ATP analogs to produce VC in the PV bed was α, β -methylene ATP $(\alpha, \beta-\text{meATP})$ » $\beta, \tau-\text{methylene ATP}$ > ATP. BWA1433U inhibited VC responses to ATP without affecting the responses to its degradation-resistant analogs $\beta,\tau\text{-methylene}$ ATP and $\alpha,\beta\text{-meATP}.$ In the presence of BWA1433U and a continuous intralobar infusion of the selective 5'-nucleotidase inhibitor α, β -methyleneadenosine-5'-diphosphate, ATP VC responses were enhanced compared to those after BWA1433U. α , β -Methyleneadenosine-5'-diphosphate had no effect on the VC response to U44069 after BWA1433U. Meclofenamate inhibited the vasoconstrictor responses to ATP but not to α, β -meATP. Repeated injections of α, β -meATP produced selective inhibition of the VC responses to ATP without affecting VC responses to adenosine, norepinephrine, or angiotensin II. By using this technique to desensitize P2x receptors, subsequent injections of ATP blocked the VC responses to adenosine. Adenosine may produce VC in the feline PV bed by acting on an adenosine A1-'like' receptor coupled to a phospholipase which causes the release of TXA2. ATP may produce VC following its metabolism to adenosine but also by acting on the specific ATP receptor, P2x not coupled to a phospholipase.
- 53296-10-9, 2-Phenylaminoadenosine ΤТ

RL: BIOL (Biological study)

(pulmonary vasoconstriction from, receptor mechanism of)

53296-10-9 CAPLUS RN

CN Adenosine, 2-(phenylamino)- (CA INDEX NAME)

Absolute stereochemistry.

OSC.G THERE ARE 16 CAPLUS RECORDS THAT CITE THIS RECORD (16 CITINGS)

1.6 ANSWER 123 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN

ΑN 1991:536628 CAPLUS

DN 115:136628 OREF 115:23451a,23454a

An efficient synthesis of 2-(phenylamino)adenosine [CV-1808]: an adenosine A2 receptor selective agonist.

AU Trivedi, Bharat K.

CS Dep. Chem., Warner-Lambert/Parke-Davis Res. Div., Ann Arbor, MI, 48105,

Nucleic Acid Chem. (1991), Volume 4, 264-8. Editor(s): Townsend, Leroy B.; Tipson, R. Stuart. Publisher: Wiley, New York, N. Y. CODEN: 39GCA6

DT Conference

LΑ English

A five-step process for synthesizing CV-1808 from com. available guanosine AB is reported. A key step is the conversion of guanosine 2',3',5'-triacetate by using CHBr3 and an alkyl nitrite.

TT 53296-10-9P, 2-Phenylaminoadenosine RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of)

53296-10-9 CAPLUS RN

CN Adenosine, 2-(phenylamino) - (CA INDEX NAME)

Absolute stereochemistry.

OSC.G THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

ANSWER 124 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN

1991:487624 CAPLUS AN

115:87624 DN

OREF 115:14955a,14958a

Kinetic analysis of ligand binding to the Ehrlich cell nucleoside transporter: pharmacological characterization of allosteric interactions with the [3H] nitrobenzylthioinosine binding site

ΑIJ Hammond, James R.

CS Dep. Pharmacol. Toxicol., Univ. West. Ontario, London, ON, N6A 5C1, Can.

Molecular Pharmacology (1991), 39(6), 771-9

CODEN: MOPMA3; ISSN: 0026-895X

DT Journal

LA

English Kinetic anal. of the binding of [3H]nitrobenzylthioinosine ([3H]NBMPR) to Ehrlich ascites tumor cell plasma membranes was conducted in the presence and absence of a variety of nucleoside transport inhibitors and substrates. The association of [3H]NBMPR with Ehrlich cell membranes occurred in two distinct phases, possibly reflecting functional conformation changes in the [3H]NBMPR binding site/nucleoside transporter complex. Inhibitors of the equilibrium binding of [3H]NBMPR, tested at submaximal inhibitory concns., generally decreased the rate of association of [3H]NBMPR, but the magnitude of this effect varied significantly with the agent tested. Adenosine and diazepam had relatively minor effects on the association rate, whereas dipyridamole and mioflazine slowed the rate dramatically. Inhibitors of nucleoside transport also decreased the rate of dissociation of [3H]NBMPR, with an order of potency different from their relative potencies as inhibitors of the equilibrium binding of [3H]NBMPR. Dilazep, dipyridamole, and mioflazine were effective inhibitors of both [3H] NBMPR dissociation and equilibrium binding. The lidoflazine analog R75231, on the other hand, had no effect on the rate of dissociation of [3H]NBMPR at concns. below 300 $\mu\text{M}\textsc{,}$ even though it was one of the most potent inhibitors of [3H]NBMPR binding tested (Ki < 100 nM). In contrast, a series of natural substrates for the nucleoside transport system enhanced the rate of dissociation of [3H]NBMPR with an order of effectiveness that paralleled their relative affinities for the permeant site of the transporter. The most effective enhancers of [3H]NBMPR dissociation, however, were the benzodiazepines diazepam, chlordiazepoxide, and triazolam.

Comparable effects of adenosine and dipyridamole on [3H]NBMPR dissociation rate were obtained upon solubilization of the membranes with octylglucoside, suggesting that this phenomenon was not due to changes in membrane fluidity. These results are compatible with the existence of specific ligand recognition sites on the nucleoside transport complex of Ehrlich cells that are pharmacol. distinct from, but allosterically linked to, the high affinity binding sites for [3H]NBMPR. The marked effects on [3H]NBMPR binding kinetics that result from ligand interactions with these sites must be considered in the design and anal. of all studies involving the use of [3H]NBMPR as a high affinity probe for the nucleoside transport system.

53296-10-9, CV-1808 TΤ

RL: BIOL (Biological study)

(nucleoside transport system binding of nitrobenzylthioinosine response tol

53296-10-9 CAPLUS RN

Adenosine, 2-(phenylamino) - (CA INDEX NAME) CN

Absolute stereochemistry.

OSC.G THERE ARE 14 CAPLUS RECORDS THAT CITE THIS RECORD (15 CITINGS)

ANSWER 125 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN 1.6

1991:442471 CAPLUS AΝ

DN 115:42471

OREF 115:7225a,7228a

- The antinociceptive effect of intrathecally administered adenosine analogs in mice correlates with the affinity for the A1-adenosine receptor
- Karlsten, Rolf; Post, Claes; Hide, Izumi; Daly, John W. ΑU
- Dep. Anesthesiol., Univ. Hosp., Uppsala, S-751 85, Swed. Neuroscience Letters (1991), 121(1-2), 267-70 CS

SO CODEN: NELED5; ISSN: 0304-3940

DT Journal

LAEnglish

- AΒ The antinociceptive effects after intrathecal injection of each of 6 N6-substituted adenosine analogs and of 2-phenylaminoadenosine were compared with the affinity for the A1- and A2-adenosine receptors. Adenosine analogs, substituted in the N6-position, had stereoselective structure-dependent antinociceptive effects in the tail flick and hot plate assays after intrathecal injection in mice. The antinociceptive activity for N6-R- and S-phenylisopropyladenosine, N6-R- and S-1-phenylethyladenosine, N6-1,1-dimethyl-2-phenylethyladenosine, and N6-cyclooctyladenosine correlated with the affinity for central A1-adenosine receptors. An adenosine analog, 2-phenylaminoadenosine, selective for A2-adenosine receptors was inactive in the 2 tests. These results strongly suggest that spinal Al-adenosine receptors are responsible for the antinociceptive effects of adenosine and its analogs after intrathecal injection.
- 53296-10-9

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)

(analgesic action of, after intrathecal administration, affinity for Al adenosine receptors in relation to)

53296-10-9 CAPLUS

Adenosine, 2-(phenylamino) - (CA INDEX NAME) CN

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OSC.G
         25
               THERE ARE 25 CAPLUS RECORDS THAT CITE THIS RECORD (25 CITINGS)
T.6
     ANSWER 126 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN
     1991:241169 CAPLUS
AN
DN
     114:241169
OREF 114:40541a,40544a
     Relaxant effects of adenosine analogs on guinea pig trachea in vitro:
TΤ
     xanthine-sensitive and xanthine-insensitive mechanisms
     Brackett, L. E.; Daly, J. W.
CS
     Lab. Bioorg. Chem., Natl. Inst. Diabetes, Dig. Kidney Dis., Bethesda, MD,
     20892. USA
     Journal of Pharmacology and Experimental Therapeutics (1991), 257(1),
SO
     205-13
     CODEN: JPETAB; ISSN: 0022-3565
DT
     Journal
LΑ
     English
     Adenosine analogs were tested for their ability to relax
AB
     carbachol-contracted trachea in vitro. The rank order of potency was:
     5'-N-ethylcarboxamidoadenosine (NECA) > 2-chloroadenosine (2-ClADO) >
     5'-chloroadenosine = N6-R-1-phenyl-2-propyladenosine (R-PIA) >
     N6-cyclohexyladenosine > 2-phenylaminoadenosine (CV1808) >
     5'-methylthicadenosine (MTA). The rank order of potency for NECA, 2-ClADO and R-PIA is characteristic of an A2 subtype of adenosine receptor.
     8-Para-sulfophenyltheophylline (8-p-ST) and
     8-cyclopentyl-1,3-dipropylxanthine (DPCPX), were used to antagonize
     tracheal relaxation elicited by adenosine analogs. 8-p-ST antagonized the
     2-ClADO, N6-cyclohexyladenosine, R-PIA and 5'-chloroadenosine responses,
     but had little or no effect on the CV1808 and MTA responses. 8-P-ST
     antagonized responses to NECA at concns. of NECA up to .apprx.30 \mu\text{M},
     but had no effect on responses to higher concns. of NECA. The differences
     in antagonist potency of 8-p-ST and the clear biphasic response of NECA
     are indicative of at least 2 mechanisms of adenosine analog action leading
     to tracheal relaxation. One mechanism is mediated through a xanthine-sensitive site, at which NECA acted in a potent manner, whereas
     the other mechanism or mechanisms are insensitive to blockade by xanthines and account for the effects of action of MTA and CV1808, as well for NECA
     at high concns. The low potency of the A1-selective antagonist DPCPX
     indicates that the xanthine-sensitive site is an A2 type receptor. MTA is
     known to be an antagonist at A2-adenosine receptors that stimulate
     adenylate cyclase activity, yet MTA did not antagonize the NECA-induced
     relaxation of trachea. Thus, the A2-type adenosine receptors in smooth muscle appear different from the A2-adenosine receptors that are linked to
     adenylate cyclase in other tissues.
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ΤТ 53296-10-9, CV1808

RL: BIOL (Biological study)

(trachea relaxation induction by, xanthine-sensitive and -insensitive mechanisms for)

RM 53296-10-9 CAPLUS

Adenosine, 2-(phenylamino)- (CA INDEX NAME) CN

OSC.G 18 THERE ARE 18 CAPLUS RECORDS THAT CITE THIS RECORD (18 CITINGS)

T.6 ANSWER 127 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN

1991:240324 CAPLUS AN

DN 114:240324

OREF 114:40361a,40364a

The antihypertensive effect of 2-alkynyladenosines and their selective TΤ affinity for adenosine A2 receptors

ΑU Abiru, Toichi; Yamaguchi, Toyofumi; Watanabe, Yohko; Kogi, Kentaro; Aihara, Kazuyuki; Matsuda, Akira

Res. Dev. Div., Yamasa Shoyu Co., Ltd., Choshi, 288, Japan European Journal of Pharmacology (1991), 196(1), 69-76 CS

SO CODEN: EJPHAZ; ISSN: 0014-2999

DT Journal

English LΑ

The affinity for adenosine receptors and the antihypertensive effects of AB nine adenosine derivs., especially the alkynyl compds. 2-hexynyladenosine (2-H-Ado) and 2-octynyladenosine (2-O-Ado), was studied. The order of decreasing affinity of the agonists tested for rat brain Al receptors was N6-cyclopentyladenosine (CPA) > N6-cyclohexyladenosine (CHA) > N6-R-phenylisopropyladenosine (R-PIA) > 2-chloroadenosine (CADO) = 5'-N-ethylcarboxamidoadenosine (NECA) > N6-S-phenylisopropyladenosine (S-PIA) > 2-H-Ado > 2-phenylaminoadenosine (CV-1808), and that for A2 receptors was 2-H-Ado > 2-O-Ado = NECA > CADO > CV-1808 > R-PIA > CPA >CHA > S-PIA. The Ki values of 2-H-Ado and 2-O-Ado for inhibiting [3H] NECA binding to A2 receptors were 4.1 and 12.1 nM, resp., and those for [3H]CHA binding to A1 receptors were 146 and 211 nM, resp.: the affinity of 2-H-Ado and 2-O-Ado for A2 receptors was about 36- and 17-fold, resp., higher than their affinity for A1 receptors. Injection of 2-H-Ado and $2\text{--}0\text{--}Ado~(0.03\text{--}100~\mu\text{g/kg})$ decreased the blood pressure of anesthetized, spontaneously hypertensive rats (SHR). A slight decrease in heart rate was observed after i.v. injection of 100 μg 2-H-Ado and 2-O-Ado/kg. A potent and long-lasting antihypertensive effect was also observed after oral administration of 2-H-Ado and 2-0-Ado to conscious SHR. These results show that 2-H-Ado and 2-O-Ado are potent and selective adenosine A2 receptor agonists; these agents lower blood pressure after oral administration but are less effective in decreasing heart rate.

53296-10-9, 2-Phenylaminoadenosine RL: BIOL (Biological study)

(antihypertensive activity and purinergic A2 receptor affinity of)

RN 53296-10-9 CAPLUS

Adenosine, 2-(phenylamino)- (CA INDEX NAME)

Absolute stereochemistry.

THERE ARE 19 CAPLUS RECORDS THAT CITE THIS RECORD (20 CITINGS)

1.6 ANSWER 128 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN 1991:240169 CAPLUS

10/598,520

DN 114:240169 OREF 114:40325a,40328a Adenosine and 2-phenylaminoadenosine (CV-1808) inhibit human neutrophil TΤ bactericidal function ΑU Hardart, G. E.; Sullivan, G. W.; Carper, H. T.; Mandell, G. L. Dep. Med., Univ. Virginia, Charlottesville, VA, 22908, USA CS Infection and Immunity (1991), 59(3), 885-9 CODEN: INFIBR; ISSN: 0019-9567 SO DT Journal LAEnglish Adenosine is a natural autocoid and immunomodulator that serves an AΒ anti-inflammatory role. Stimulation of polymorphonuclear neutrophils (PMN) with soluble stimuli has been shown to inhibit the PMN oxidative burst. The authors examined the effects of adenosine and the adenosine analog 2-phenylaminoadenosine (CV-1808) on PMN bactericidal function. Adenosine (10 mM) and CV-1808 (10 to 100 $\mu\text{M})$ inhibited PMN killing of Staphylococcus aureus. There were more surviving bacteria after 240 min of incubation of PMN with S. aureus and adenosine (10 mM) or CV-1808 (100 $\mu\text{M})$ (254 and 739% of control, resp.) than there were in the control. In contrast, inosine (10 mM), the major degradation product of adenosine, did not affect killing. Adenosine and CV-1808 did not alter cell association of S. aureus, but S. aureus-activated PMN superoxide release was decreased by adenosine (10 $\mu\text{M})$ and CV-1808 (10 $\mu\text{M})$ to 67 and 32% that of the control, resp. Since adenosine inhibited PMN bactericidal function only at .apprx.10,000 times peak physiol. concns., endogenous adenosine levels would not be expected to adversely affect PMN bactericidal function. On the other hand, pharmacol. concns. of adenosine derivs. may decrease the oxidative burst and killing sufficiently to increase host susceptibility to infection. 53296-10-9, CV 1808 ΙT RL: BIOL (Biological study)

(polymorphonuclear neutrophils of humans bactericidal function inhibition by)

RN 53296-10-9 CAPLUS

CN Adenosine, 2-(phenylamino)- (CA INDEX NAME)

Absolute stereochemistry.

OSC.G 10 THERE ARE 10 CAPLUS RECORDS THAT CITE THIS RECORD (10 CITINGS)

L6 ANSWER 129 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN

AN 1991:185903 CAPLUS

DN 114:185903

OREF 114:31415a,31418a

TI 2-Aralkoxyadenosines: potent and selective agonists at the coronary artery A2 adenosine receptor

AU Ueeda, Masayuki; Thompson, Robert D.; Arroyo, Luis H.; Olsson, Ray A. C.S. Dep. Intern. Med., Univ. South Florida, Tampa, FL, 33612, USA

CS Dep. Intern. Med., Univ. South Florida, Tampa, FL, 33612, USA SO Journal of Medicinal Chemistry (1991), 34(4), 1340-4

CODEN: JMCMAR; ISSN: 0022-2623

DT Journal

LA English

GT

10/598,520

A Langendorff guinea pig heart preparation served for the assay of agonist AB potency of 26 2-aralkoxyadenosines I (R = Ph, Ph(CH2)n, R1C6H4CH2CH2, R2CH2CH2, n = 2-5; R1 = 2-, 3-, 4-F, 2-, 3-, 4-Cl, 2-, 3-, 4-Me0, 2-, 3-, 4-Me, R2 = 2-, 3-thienyl, 3-indolyl, 1-, 2-naphthyl, 3,4-(MeO)2C6H3, 3,4,5-(MeO)3C6H2] at the A1 and A2 receptors of, resp., the atrioventricular node (conduction block) and coronary arteries (vasodilation). All of the analogs are weak agonists at the A1 receptor, requiring concns. >9 μM to cause heart block. At the A2 receptor 2-phenethoxyadenosine (I; R= PhCH2CH2) is the most potent of the 2-phenylalkyladenosines. The activity of ring-substituted (F, Cl, CH3, and OCH3) 2-phenethoxyadenosines increases ortho < meta < para. The EC50s of coronary vasodilation of 190 pM and an A1/A2 selectivity ratio of 44000. Aryl groups such as thienyl, indoloyl, or naphthyl also support A2 agonist activity. Although the 2-oxoadenosine is 3 times more potent than 2-aminoadenosine, the activities of the Ph derivs. are markedly different; 2-phenoxyadenosine (I; R = Ph) is 23 times weaker than 2-(phenylamino)adenosine (CV-1808). 50257-82-4P 131865-78-6P 131865-81-1P

131865-82-2P

RL: SPN (Synthetic preparation); PREP (Preparation) (preparation and cardiac and coronary activity of)

RN 50257-82-4 CAPLUS

Adenosine, 2-phenoxy- (CA INDEX NAME)

Absolute stereochemistry.

131865-78-6 CAPLUS

Adenosine, 2-(phenylmethoxy)- (CA INDEX NAME)

Absolute stereochemistry.

RN

131865-81-1 CAPLUS Adenosine, 2-(4-phenylbutoxy)- (CA INDEX NAME) CN

Absolute stereochemistry.

RN 131865-82-2 CAPLUS

Adenosine, 2-[(5-phenylpentyl)oxy]- (CA INDEX NAME) CN

Absolute stereochemistry.

THERE ARE 22 CAPLUS RECORDS THAT CITE THIS RECORD (22 CITINGS) OSC.G 2.2

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ANSWER 130 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN
L6
```

1991:185902 CAPLUS ΑN

114:185902 DN

OREF 114:31415a,31418a

2-Alkoxyadenosines: potent and selective agonists at the coronary artery TΙ A2 adenosine receptor

Ueeda, Masayuki; Thompson, Robert D.; Arroyo, Luis H.; Olsson, Ray A. ΑIJ

Dep. Intern. Med., Univ. South Florida, Tampa, FL, 33612, USA Journal of Medicinal Chemistry (1991), 34(4), 1334-9 CS

SO CODEN: JMCMAR; ISSN: 0022-2623

DT Journal

LA English

CASREACT 114:185902 OS

A Langendorff guinea pig heart preparation served for the assay of agonist activity of a series of 24 2-alkoxyadenosines at the A1 and A2 adenosine AΒ receptors of, resp., the atrioventricular node (conduction block) and coronary arteries (vasodilation). Activities are low at the A1 receptor and do not show a clear relationship to the size or hydrophobicity of the C(2) substituent. All the analogs are more potent at the A2 receptor, activity varying directly with the size and hydrophobicity of the alkyl group. The most potent analog in this series, 2-(2-cyclohexylethoxy)adenosine, has an EC50 of 1 nM for coronary

vasodilation and is 8700-fold selective for the A2 receptor. 50257-84-6P, 2-Butoxyadenosine 50257-85-7P 50257-89-1P 50257-95-9P, 2-(Hexyloxy)adenosine 131933-17-0P 131933-20-5P 131933-27-2P 131973-26-7P 131933-15-8P 131933-26-1P

RL: SPN (Synthetic preparation); PREP (Preparation) (preparation and adenosine receptor agonist activity of)

RN 50257-84-6 CAPLUS

Adenosine, 2-butoxy- (9CI) (CA INDEX NAME) CN

RN 50257-85-7 CAPLUS

CN Adenosine, 2-(pentyloxy)- (CA INDEX NAME)

Absolute stereochemistry.

RN 50257-89-1 CAPLUS

CN Adenosine, 2-(2-hydroxyethoxy)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 50257-95-9 CAPLUS

CN Adenosine, 2-(hexyloxy)- (CA INDEX NAME)

Absolute stereochemistry.

RN 131933-15-8 CAPLUS

CN Adenosine, 2-(3-methylbutoxy)- (CA INDEX NAME)

131933-17-0 CAPLUS RN

Adenosine, 2-(cyclohexylmethoxy)- (9CI) (CA INDEX NAME) CN

Absolute stereochemistry.

131933-20-5 CAPLUS

Adenosine, 2-(4-cyclohexylbutoxy)- (9CI) (CA INDEX NAME) CN

Absolute stereochemistry.

RN

131933-26-1 CAPLUS Adenosine, 2-(2-ethylbutoxy)- (9CI) (CA INDEX NAME) ${\tt CN}$

Absolute stereochemistry.

131933-27-2 CAPLUS RN

Adenosine, 2-[(3-ethylpentyl)oxy]- (9CI) (CA INDEX NAME)

RN 131973-26-7 CAPLUS

Adenosine, 2-[(4-methylpentyl)oxy]- (9CI) (CA INDEX NAME) CN

Absolute stereochemistry.

THERE ARE 32 CAPLUS RECORDS THAT CITE THIS RECORD (32 CITINGS) OSC.G 32

ANSWER 131 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN L6

1991:39747 CAPLUS AN

114:39747 DN

OREF 114:6883a,6886a

Characterization of adenosine Al receptors in intact DDT1 MF-2 smooth TΙ muscle cells

Gerwins, P.; Nordstedt, C.; Fredholm, B. B. ΑU

Dep. Pharmacol., Karolinska Inst., Stockholm, S-104 01, Swed. Molecular Pharmacology (1990), 38(5), 660-6 CS

SO

CODEN: MOPMA3; ISSN: 0026-895X

DT Journal

LΑ English AB

Adenosine receptors in the smooth muscle cell line DDT1 MF-2 were studied by radioligand binding using the Al receptor-selective antagonist [3H]8-cyclopentyl-1,3-dipropylxanthine ([3H]DPCPX) as the ligand. characteristics were similar in intact cells and in membranes (KD value of .apprx.1 nM). The maximum binding amounted to 183 fmol/106 intact cells or 344 fmol/mg of membranes. To characterize the receptor, competition expts. were performed by inhibiting [3H]DPCPX binding with several adenosine agonists and antagonists. Adenosine receptor antagonists appeared to bind to a single class of binding site, both in membranes and intact cells. The order of potency was DPCPX = CGS 15943A > 8-cyclopentyl-1,3-dimethylxanthine > 8-(p-sulfophenyl)-theophylline > 3-isobutyl-1-methylxanthine > theophylline. Competition curves with adenosine agonists in membranes were best described by a 2-site rather than a 1-site model. At equilibrium in intact cells, only a single site was detected at both 4° and 25° . However, short term incubations (1-4 min) at 25° showed biphasic binding curves in intact cells. The equilibrium KD values for intact cells were similar to the low affinity KD values in membranes (KL). The order of potency was N6-cyclopentyladenosine \geq (-)-(R)-N6-phenylisopropyladenosine[(R)-PIA] ≥ N6-cyclohexyl adenosine > 5'-N-ethylcarboxamidoadenosine NECA > 2-chloroadenosine > adenosine (intact cells only) > 2-phenylaminoadenosine (CV 1808). Treatment of cells with pertussis toxin ADP-ribosylated GTP-binding proteins and eliminated the high-affinity agonist binding in membranes but did not affect binding to intact cells. The addition of GTP (100 μM) also shifted the competition curves from bito monophasic curves in membranes. Adenosine receptor agonists inhibited the formation of cAMP induced by isoprenaline (IC50 for (R)-PIA, 0.4 nM). This inhibition could be prevented with adenosine receptor antagonists. Pretreatment with pertussis toxin also reversed these effects and actually revealed functional A2 receptors, as shown by the formation of cAMP

induced by NECA. In conclusion, the equilibrium binding of A1 receptor agonists to intact smooth muscle cells is similar to the low affinity binding observed in membranes. In addition, it is suggested that agonists may transiently convert the A1 receptor from a resting low-affinity state to a high-affinity state coupled to a GTP-binding protein. DDT1 MF-2 cells should prove useful for studying regulation of A1 receptor signalling in intact cells.

IT 53296-10-9

RL: BIOL (Biological study)

(adenosine Al receptor binding by, in smooth muscle cells)

RN 53296-10-9 CAPLUS

CN Adenosine, 2-(phenylamino)- (CA INDEX NAME)

Absolute stereochemistry.

OSC.G 22 THERE ARE 22 CAPLUS RECORDS THAT CITE THIS RECORD (23 CITINGS)

L6 ANSWER 132 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN

AN 1990:604633 CAPLUS

DN 113:204633

OREF 113:34369a,34372a

 $\ensuremath{\mathsf{TI}}$ Hemodynamic effects of adenosine agonists in the conscious spontaneously hypertensive rat

AU Webb, R. L.; McNeal, R. B., Jr.; Barclay, B. W.; Yasay, G. D.

CS Pharm. Div., Ciba-Geigy Corp., Summit, NJ, 07901, USA

SO Journal of Pharmacology and Experimental Therapeutics (1990), 254(3), 1090-9
CODEN: JPETAB; ISSN: 0022-3565

DT Journal

LA English

AΒ The hemodynamic mechanisms contributing to the reduction in blood pressure were studied in conscious spontaneously hypertensive rats after systemic administration of adenosine agonists. The effects produced by i.v. and intraarterial injections of 2-phenylaminoadenosine (CV-1808, adenosine A2 selective agonist), 5'-N-ethylcarboxamide adenosine (NECA, nonselective agonist), 2-chloroadenosine (2-CADO, A1 selective agonist), and cyclopentyladenosine (CPA, Al selective agonist) were evaluated and compared to those of hydralazine. All agents produced hypotensive effects after bolus i.v. injections. Although CPA, NECA, and 2-CADO elicited dose-dependent bradycardia, CV-1808 and hydralazine increased the heart rate. These effects, with the exception of hydralazine-evoked responses, were attenuated by prior treatment with 8-(p-sulfophenyl)theophylline (2 mg/kg/min), whereas both CV-1808 and hydralazine produced regional vasodilation; increases in blood flow occurred only after CV-1808 (3-30 $\mu g/kg)$. The regional hemodynamic responses to NECA were more complex; low doses (0.1-1 μ g/kg) produced consistent redns. in regional vascular resistance, whereas at the highest dose renal vasoconstriction occurred. Although regional vasodilation occurred after 2-CADO, mesenteric vasoconstriction was observed subsequent to CPA administration. Whereas increases renin release were evident in animals treated with CV-1808 and hydralazine, no changes occurred in response to the NECA-, 2-CADO- or CPA-induced hypotension. The predominant hemodynamic response after selective activation of A2 receptors is the regional vasodilation and hypotension leading to a reflex increase in heart rate and renin release. The reduction in arterial pressure seen after A1 receptor activation is associated primarily with a reduction in heart rate and an inhibition of renin release. NECA and 2-CADo are nonselective adenosine agonists capable of activating both A1 and A2 receptors in the conscious spontaneously hypertensive rat.

IT 53296-10-9, 2-Phenylaminoadenosine RL: PRP (Properties) (hemodynamic effects of, adenosine receptors in, in hypertension) RN 53296-10-9 CAPLUS CN Adenosine, 2-(phenylamino)- (CA INDEX NAME)

Absolute stereochemistry.

OSC.G 21 THERE ARE 21 CAPLUS RECORDS THAT CITE THIS RECORD (21 CITINGS)

L6 ANSWER 133 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN

AN 1990:545750 CAPLUS

DN 113:145750

OREF 113:24593a,24596a

TI Characterization of the adenosine receptor in porcine coronary arteries

AU King, A. D.; Milavec-Krizman, M.; Mueller-Schweinitzer, E.

CS Sandoz Pharma A.-G., Basel, CH-4002, Switz.

SO British Journal of Pharmacology (1990), 100(3), 483-6 CODEN: BJPCBM; ISSN: 0007-1188

DT Journal

LA English

AB Relaxant responses of ring prepns. from porcine ventricular coronary arteries to adenosine and various stable adenosine analogs were investigated in vitro. The adenosine analogs did not produce contraction but elicited almost complete relaxation of coronary arteries preconstricted with 3 μM prostaglandin F2 α (PGF2 α), even after removal of the endothelium. The order of potency was 5'-N-ethylcarboxamide-adenosine (NECA) > 2-(2-phenylethylamino)-5'-N-ethylcarboxamide-adenosine (2-PEA-NECA) > 2-phenylamino-adenosine (CV-1808) > N6-[R(-)-1-phenyl-2-propyl]adenosine(R-PIA) > N6-[S(+)-1-phenyl-2-propyl] adenosine (S-PIA) >N6-cyclopentyladenosine (CPA) > adenosine > ATP = ADP, which suggested the presence of adenosine A2-receptor subtypes. There was an excellent correlation between the calculated pD2 values on coronary arteries and the pKD values at adenosine A2 binding sites, whereas no correlation was obtained when the pD2 values were compared to the pKD values at adenosine Al-binding sites on membranes from porcine striata. The relaxant effects of adenosine and its analogs were competitively antagonized by 8-(p-sulfophenyl)theophylline (8-SPT), producing pA2 values similar to the resp. pKD value of the antagonist at adenosine A2 binding sites. It is suggested that the porcine coronary artery possesses adenosine A2 receptors which seem to be similar to the adenosine A2 binding site in pig striatum, whereas no evidence was obtained for the presence of adenosine Al receptors.

IT 53296-10-9, CV-1808

RL: BIOL (Biological study)

(coronary artery relaxation induction by, purinergic A2 receptors in mediation of) $\,$

RN 53296-10-9 CAPLUS

CN Adenosine, 2-(phenylamino) - (CA INDEX NAME)

Absolute stereochemistry.

McIntosh

OSC.G 12 THERE ARE 12 CAPLUS RECORDS THAT CITE THIS RECORD (12 CITINGS)

L6 ANSWER 134 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN

AN 1990:545035 CAPLUS

DN 113:145035

OREF 113:24425a,24428a

- TI Adenosine receptors and modulation of natural killer cell activity by purine nucleosides
- AU Priebe, Teresa; Platsoucas, Chris D.; Nelson, J. Arly
- CS M. D. Anderson Cancer Cent., Univ. Texas, Houston, TX, 77030, USA SO Cancer Research (1990), 50(14), 4328-31

SO Cancer Research (1990), 50(14), 4328-31 CODEN: CNREA8; ISSN: 0008-5472

DT Journal

LA English

AΒ Natural killer (NK) cell activity is inhibited in vivo by the adenosine analog tubercidin (Tub) and stimulated by the deoxyadenosine analog $2-fluoro-1-\beta-D-arabinofuranosyladenine$ 5'-monophosphate (F-ara-AMP) in the spleen lymphocytes from mice. The inhibition by Tub and stimulation by F-ara-AMP of NK cell activity are readily demonstrable in murine and human lymphocytes exposed to the drugs in vitro. In mouse spleen lymphocytes, NK cell activity is also inhibited by adenosine receptor A2 agonists, whereas potent A1 receptor agonists are more effective stimulators. Inhibition produced by adenosine, deoxyadenosine, and adenosine receptor agonists, but not by Tub, is partially prevented by the adenosine receptor antagonist 1,3-dipropyl-8-phenylxanthine amine congener. Agents that stimulate NK cell activity (deoxyadenosine, A1 receptor agonists, F-ara-AMP) do not increase further the 1.5-fold enhancement produced by a 10-6M 1,3-dipropyl-8-phenylxanthine amine congener. The nucleoside transport inhibitor p-nitrobenzylthioinosine 5'-monophosphate has no effect on NK cell activity or intracellular ribonucleotide pools; however, it partially prevents Tub 5'-triphosphate formation, ATP depletion, and NK cell inhibition in mouse spleen cells treated with Tub. Nitrobenzylthioinosine 5'-monophosphate also partially prevents the F-ara-AMP stimulation of NK cell activity, but it does not influence the effects of adenosine or deoxyadenosine. The results obtained with the adenosine receptor agonists suggest roles for both Al and A2 receptors in regulating murine NK cell activity. Tub inhibition of NK cell activity does not involve adenosine receptors; however, inhibition by the other agents may be mediated via an A2 receptor (stimulatory for adenylyl cyclase). Since p-nitrobenzylthioinosine 5'-monophosphate inhibited the stimulation of NK cell activity by F-ara-AMP, this stimulation may occur via an intracellular P site (inhibitory to adenylyl cvclase).

IT $5\overline{3}296-10-9$, 2-Phenylaminoadenosine

RL: BIOL (Biological study)

(splenocyte natural killer activity modulation by, adenosine receptors in)

RN 53296-10-9 CAPLUS

CN Adenosine, 2-(phenylamino)- (CA INDEX NAME)

Absolute stereochemistry.

OSC.G 19 THERE ARE 19 CAPLUS RECORDS THAT CITE THIS RECORD (19 CITINGS)

L6 ANSWER 135 OF 195 CAPLUS COPYRIGHT 2010 ACS on SIN

AN 1990:508747 CAPLUS

DN 113:108747

OREF 113:18193a,18196a

TI Study of the lipophilic character of xanthine and adenosine derivatives.
II. Relationships between log k', RM and log P values

AU Biagi, G. L.; Guerra, M. C.; Barbaro, A. M.; Barbieri, S.; Recanatini, M.;

10/598,520 Borea, P. A. CS Ist. Farmacol., Univ. Bologna, Bologna, Italy Journal of Liquid Chromatography (1990), 13(5), 913-27 SO CODEN: JLCHD8; ISSN: 0148-3919 DT Journal LΑ English The log $k^{\, \prime}$ values of a series of xanthine and adenosine derivs. were AΒ measured by reversed-phase HPLC. The HPLC data correlated with previously reported RM and RMC18 values. The equations describing the relationships log k'/RM and log k'/RMC18 allowed the calcn. of the log k' values of some compds. which were not tested in the HPLC system. Since the relationship log k'/log P is very close to the previously described relationships RM/log P and RMC18/log P, reversed-phase TLC and HPLC are very similar in describing the lipophilicity of the compds. ΙT 53296-10-9, 2-Phenylaminoadenosine RL: PRP (Properties) (lipophilicity of, reversed-phase HPLC in determination of) 53296-10-9 CAPLUS CN Adenosine, 2-(phenylamino) - (CA INDEX NAME) Absolute stereochemistry. NH2

PhNH \cap H R

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OSC.G
       15
              THERE ARE 15 CAPLUS RECORDS THAT CITE THIS RECORD (15 CITINGS)
     ANSWER 136 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN
     1990:454059 CAPLUS
AN
     113:54059
DN
OREF 113:9041a,9044a
     2-(p-Nitrophenyl)-2'-deoxyadenosine, a new type of mutagenic nucleoside
     Matsuda, Akira; Ohara, Yoshiko; Kakutani, Toshifumi; Neqishi, Kazuo;
ΑIJ
     Wataya, Yusuke; Hayatsu, Hikoya; Ueda, Tohru
CS
     Fac. Pharm. Sci., Hokkaido Univ., Sapporo, 060, Japan
SO
     Nucleic Acids Research (1990), 18(7), 1833-8
     CODEN: NARHAD; ISSN: 0305-1048
DТ
     Journal
LΑ
     English
AB
     A crude preparation of 2-phenyladenosine was mutagenic in the Ames salmonella
     assay. In the purification of this preparation, it was revealed that
     2-phenyladenosine itself was nonmutagenic but that 2-(m- and
     p-nitrophenyl)adenosines (5m,p) contaminating the sample were the
     mutagenic principles. A structure-activity relationship study was carried
     out, and it was found that 5p, 2-(p-nitrophenyl)adenine (7p), and
     2-(p-nitrophenyl)-2'-deoxyadenosine (15p) were strongly mutagenic toward
     S. typhimurium TA98 and TA100 without metabolic activation, the potency
     being in the order 15p > 7p > 5p. The potency of 15p in TA98 was one
     order of magnitude greater than that of 4-nitroquinoline N-oxide. The 15p
     also showed mutagenicity in the mouse cell line FM3A in culture.
     109875-49-2P
     RL: ADV (Adverse effect, including toxicity); SPN (Synthetic preparation);
     BIOL (Biological study); PREP (Preparation)
        (preparation and mutagenicity of, in Ames test)
     109875-49-2 CAPLUS
RN
     Adenosine, 2-(4-aminophenyl)- (9CI) (CA INDEX NAME)
```

OSC.G THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

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1.6
     ANSWER 137 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN
     1990:435339 CAPLUS
AN
DN
     113:35339
OREF 113:5913a,5916a
     Adenosine receptors are coupled negatively to release of tachykinin(s)
TΤ
     from enteric nerve endings
     Christofi, F. L.; McDonald, T. J.; Cook, M. A.
ΑU
CS
     Dep. Pharmacol. Toxicol., Univ. West. Ontario, London, ON, N6A 5C1, Can.
     Journal of Pharmacology and Experimental Therapeutics (1990), 253(1),
SO
     290-5
     CODEN: JPETAB; ISSN: 0022-3565
     Journal
```

DT

LΑ English

AB

Adenosine receptors capable of modulating tachykininergic transmission were characterized in functional studies using both field-stimulated and cholecystokinin octapeptide-stimulated contractile responses of atropinized guinea pig longitudinal muscle-myenteric plexus prepns. These tetrodotoxin-sensitive responses, which were mediated by release of one or more tachykinins, were inhibited by adenosine analogs in a concentration-dependent manner. The rank order of potencies of the analogs as inhibitors of the responses to cholecystokinin octapeptide was: N6-cyclopentyladenosine > 5'-N-ethylcarboxamidoadenosine >> 2-phenylaminoadenosine (CV 1808). Schild anal. of the antagonism of the presynaptic inhibitory effects of 5'-N-ethylcarbocamidoadenosine and N6-cyclopentyladenosine on cholecystokinin octapeptide-stimulated responses using the Al selective antagonists 1,3-dipropyl-8(4-sulfophenyl)xanthine and 1,3-dipropyl-8-(cyclopentyl)xanthine yielded linear isoboles with unit slopes indicating competitive antagonism. The affinity of the antagonists for the receptor $\operatorname{site}(s)$ involved in inhibition of tachykininergic transmission was similar to those established previously for cholinergic transmission. The rank order of potency of adenosine analogs as inhibitors of the field-stimulated responses was such that N6-cyclopentyladenosine = 5'-ethylcarboxamidoadenosine. Reverse-phase HPLC anal. performed on lysates of isolated myenteric nerve endings demonstrated the presence of substance P and neurokinin-A. Neurokinin-B was undetectable. These studies indicate that adenosine receptor(s) on myenteric nerve endings are coupled neg. to tachykinin release and that they are probably identical to those involved in the modulation of acetylcholine release.

53296-10-9, CV 1808 IT

> RL: BIOL (Biological study) (tachykinin-induced contractions of ileum-myenteric plexus preparation inhibition by)

53296-10-9 CAPLUS RN

Adenosine, 2-(phenylamino)- (CA INDEX NAME)

Absolute stereochemistry.

McIntosh

OSC.G 14 THERE ARE 14 CAPLUS RECORDS THAT CITE THIS RECORD (14 CITINGS)

ANSWER 138 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN

1990:424426 CAPLUS AΝ

DN 113:24426

OREF 113:4255a,4258a

2-(Arylalkylamino)adenosin-5'-uronamides: a new class of highly selective TΙ adenosine A2 receptor ligands

Hutchison, Alan J.; Williams, Michael; De Jesus, Reynalda; Yokoyama, Rina; Oei, Howard H.; Ghai, Geetha R.; Webb, Randy L.; Zoganas, Harry C.; Stone, ΑU George A.; Jarvis, Michael F.

CS

Pharm. Div., Ciba-Geigy Corp., Summit, NJ, 07901, USA Journal of Medicinal Chemistry (1990), 33(7), 1919-24 SO

Т

CODEN: JMCMAR; ISSN: 0022-2623

DT Journal

English LA

OS CASREACT 113:24426

GΙ

The synthesis and receptor-binding profiles at adenosine receptor subtypes AB for a series of 2-arylalkylamino-adenosine-5'-uronamides is described. Halogenated 2-phenethylamino analogs such as I (R = Cl) show greater than 200-fold selectivity for the A2 receptor subtype on the basis of rat brain receptor binding. The general structure-activity relationship of this series of compds. is discussed both in terms of potency at A2 receptors as well as receptor subtype selectivity. It is possible to introduce a hydrophilic carboxyalkyl substituent to this series such as in CGS 21680A (I; R = HO2CCH2CH2) and still retain good potency and selectivity for A2receptors. In addition, functional data in a perfused working rat heart model shows that these compds. possess full agonist properties at A2 receptors with I (R = $\rm HO2CCH2CH2$) having a greater than 1500-fold separation between A2 (coronary vasodilatory) and A1 (neg. chronotropic) receptor mediated events.

53296-10-9DP, CV1808, analogs

RL: SPN (Synthetic preparation); PREP (Preparation) (preparation and adenosine acceptor selectivity of)

RN 53296-10-9 CAPLUS

Adenosine, 2-(phenylamino) - (CA INDEX NAME)

Absolute stereochemistry.

THERE ARE 40 CAPLUS RECORDS THAT CITE THIS RECORD (40 CITINGS) OSC.G

ANSWER 139 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN 1.6 1990:135402 CAPLUS

10/598,520

DN 112:135402 OREF 112:22805a,22808a Study of the lipophilic character of xanthine and adenosine derivatives. TΤ I. RM and log P values ΑU Biagi, G. L.; Guerra, M. C.; Barbaro, A. M.; Barbieri, S.; Recanatini, M.; Borea, P. A.; Pietrogrande, M. C. Ist. Farmacol., Univ. Bologna, Bologna, 40126, Italy CS SO Journal of Chromatography (1990), 498(1), 179-90 CODEN: JOCRAM; ISSN: 0021-9673 Journal DT English LΑ The RM values of a series of xanthine and adenosine derivs. were measured AB using silicone reversed-phase TLC and C18 reversed-phase high-performance TLC systems. The 2 series of data were well correlated. Both were compared with exptl. log P and calculated CLOGP values. For xanthine derivs., a good linear relation was shown between the RM values from the 2chromatog. systems and the log P or CLOGP data. For adenosine derivs., the CLOGP values had to be corrected to fit the data to the same equation. The TLC data proved to be reliable parameters for describing the lipophilic properties of the test compds. ΙT 53296-10-9, 2-Phenylaminoadenosine RL: PRP (Properties) (lipophilicity of, determination of, by reversed-phase high-performance TLC and reversed-phase TLC, octanol-water partition coefficient in relation to) RN53296-10-9 CAPLUS Adenosine, 2-(phenylamino) - (CA INDEX NAME)

Absolute stereochemistry.

OSC.G 18 THERE ARE 18 CAPLUS RECORDS THAT CITE THIS RECORD (18 CITINGS)

```
1.6
      ANSWER 140 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN
AN
      1990:119289 CAPLUS
      112:119289
OREF 112:20227a,20230a
      Synthesis of congeners of adenosine resistant to deamination by adenosine
TΙ
      deaminase
      Nair, Vasu; Purdy, David F.; Sells, Todd B.
Dep. Chem., Univ. Iowa, Iowa City, IA, 52242, USA
Journal of the Chemical Society, Chemical Communications (1989), (13),
ΑU
CS
SO
      878-9
      CODEN: JCCCAT; ISSN: 0022-4936
DT
      Journal
T.A
      English
OS
      CASREACT 112:119289
GΙ
```

```
The metal-mediated preparation of deaminase resistant adenosine congeners I [R
     = CH2:CH, HOCH2CH(OH), Et, F3C, cyano] from I (R = iodo) is described.
TT
     79936-11-1P
     RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
        (preparation and resistance of, to deamination by adenosine deaminase)
     79936-11-1 CAPLUS
RN
    Adenosine, 2-cyano- (9CI) (CA INDEX NAME)
CN
```

Absolute stereochemistry.

OSC.G 15 THERE ARE 15 CAPLUS RECORDS THAT CITE THIS RECORD (15 CITINGS)

```
1.6
     ANSWER 141 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN
```

1990:116389 CAPLUS AN

112:116389 DN

OREF 112:19659a,19662a

Adenosine transporters in vascular smooth muscle and endothelium: TΙ multiple [3H]nitrobenzylthioinosine binding sites in human umbilical vein endothelium

ΑU Williams, Evan F.; Harris-Hooker, Sandra; Gordon, Portia B.

CS

Dep. Pharmacol., Morehouse Sch. Med., Atlanta, GA, USA Drug Development Research (1990), 19(1), 79-90 SO CODEN: DDREDK; ISSN: 0272-4391

DT Journal LA English

AΒ

Cultured vascular smooth muscle and endothelial cells may be useful models for studying the cardiovascular adenosine transport system and metabolism The nucleoside transporter elements of cultured primate vascular smooth muscle, bovine aortic endothelial, and human umbilical vein endothelial cells were quantified by radioligand binding and by using membrane prepns. of these cells and the nucleoside transporter probe nitrobenzylthioinosine ([3H]NBMPR), a potent and tightly bound inhibitor of nucleoside transport. The binding was rapid, reversible, saturable, and site-specific. Scatchard anal. of the saturation data showed that [3H]NBMPR bound to high and low affinity binding sites in human umbilical vein endothelial cell membranes with apparent binding affinities (KD) of 0.093 nM and 1.92 nM, and binding site densities (Bmax values) of 13.48 and 69 fmol/mg protein, resp. In contrast, the binding to primate vascular smooth muscle and bovine aortic endothelial cell membranes occurred to an apparently high affinity single class of binding sites at which the KD was 1.4 nM and 0.28 nM, resp., and which had Bmax values of 1,977 and 1,284 fmol/mg protein, resp. Scatchard anal. of the binding inhibition by dipyridamole showed a mixed type inhibition, while NBMPR inhibited the binding competitively. Several recognized nucleoside transport inhibitors and vasodilatorsinhibited the binding with an order of potency similar to that observed for the inhibition of [3H] NBMPR binding to guinea pig cardiac membranes. 53296-10-9, 2-Phenylaminoadenosine

RL: PROC (Process)

(binding of, to vascular smooth muscle and endothelium of humans and laboratory animals, adenosine transporter in relation to)

53296-10-9 CAPLUS RN

Adenosine, 2-(phenylamino) - (CA INDEX NAME)

ANSWER 142 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN AN 1990:112580 CAPLUS DN 112:112580 OREF 112:18911a,18914a [3H]CGS 21680, a selective A2 adenosine receptor agonist directly labels A2 receptors in rat brain AII Jarvis, Michael F.; Schulz, Rainer; Hutchison, Alan J.; Do, Un Hoi; Sills, Matthew A.; Williams, Michael CS Pharm. Div., Ciba-Geigy Corp., Summit, NJ, 07901, USA Journal of Pharmacology and Experimental Therapeutics (1989), 251(3), SO 888-93 CODEN: JPETAB; ISSN: 0022-3565 DT Journal LA English GΤ

Characterization of the adenosine A2 receptor has been limited due to the ΔB lack of available ligands which have high affinity and selectivity for this adenosine receptor subtype. In the present study, the binding of a highly A2-selective agonist radioligand, [3H]CGS 21680 (I) is described. [3H]CGS 21680 specific binding to rat striatal membranes was saturable, reversible, and dependent on protein concentration Saturation studies revealed that [3H]CGS 21680 bound with high affinity (Kd =15.5 nM) and limited capacity (apparent Bmax = 375 fmol/mg protein) to a single class of recognition sites. Ests. of ligand affinity (16 nM) determined from association and dissociation kinetic expts. were in close agreement with the results from the saturation studies. [3H]CGS 21680 binding was greatest in striatal membranes with negligible specific binding obtained in rat cortical membranes. Adenosine agonists ligands competed for the binding of 5 nM [3H]CGS 21680 to striatal membranes with the following order of activity; CGS 21680 =5'-N-ethylcarboxamidoadenosine > 2-phenylaminoadenosine (CV-1808); 5'-N-methylcarboxamidoadenosine = 2-chloroadenosine > R-phenylisopropyladenosine > N6-cyclohexyladenosine > N6-cyclopentyltheophylline > S-phenylisopropyladenosine. The nonxanthine adenosine antagonist, CGS 15943A, was the most active compound in inhibiting the binding of [3H]CGS 21680. Other adenosine antagonists inhibited binding in the following order; xanthine amine congener = (1,3-dipropyl-8-(2-amino-4-chloro)phenylxanthine > 1,3-dipropyl-8-cyclopentylxanthine > 1,3-diethyl-8-phenylxanthine > 8-phenyltheophylline > 8-cyclopentyltheophylline = xanthine carboxylic acid congener > 8-parasulfophenyltheophylline > theophylline > caffeine. The pharmacol. profile of both adenosine agonist and antagonist compds. to compete for the binding of [3H]CGS 21680 was consistent with a selective interaction at the high affinity adenosine A2 receptor. A high pos. correlation was observed between the pharmacol. profile of adenosine ligands to inhibit the binding of [3H]CGS 21680 and the selective binding of

[3H]NECA (+50 nM CPA) to high affinity A2 receptors. However, some differences between these assays were found for compds. which have moderate affinity and nonselective actions at both the A1 and A2 adenosine receptor subtypes. Unlike data obtained with nonselective adenosine ligands, the present results indicate that [3H]CGS 21680 directly labels the high affinity A2 receptor in rat brain without the need to block binding activity at the Al receptor. The high degree of selectivity (>170-fold) and high affinity of [3H]CGS 21680 make this the current ligand of choice for the in vitro characterization of high affinity A2 receptors.

53296-10-9, CV 1808

RL: BIOL (Biological study)

(CGS 21680 binding by purinergic receptors inhibition by, in brain striatum)

RN

53296-10-9 CAPLUS Adenosine, 2-(phenylamino)- (CA INDEX NAME) CN

Absolute stereochemistry.

THERE ARE 267 CAPLUS RECORDS THAT CITE THIS RECORD (267 CITINGS) OSC.G 267

ANSWER 143 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN

1990:91613 CAPLUS ΑN

112:91613 DN

OREF 112:15383a,15386a

A selective binding site for 3H-NECA that is not an adenosine A2 receptor TΙ

Keen, Mary; Kelly, Eamonn; Nobbs, Peter; MacDermot, John ΑU

CS Med. Sch., Univ. Birmingham, Birmingham, B15 2TJ, UK SO

Biochemical Pharmacology (1989), 38(21), 3827-33 CODEN: BCPCA6; ISSN: 0006-2952

Journal

LΑ English

DT

AB

In homogenates of NG108-15 cells, adenosine analogs activate adenylate cyclase with the following order of potency: N-ethylcarboxamidoadenosine (NECA) > 2-chloroadenosine > N6-(L-phenylisopropyl)adenosine (PIA) = cyclohexyladenosine = 2-phenylaminoadenosine. Adenosine receptor antagonists inhibit NECA-stimulated adenylate cyclase activity with the order of potency 3-isobutyl-1-methyl-xanthine (IBMX) > theophylline > caffeine. These data suggest that these ligands act at an adenosine A2 receptor. There is an apparently homogeneous population of saturable 3H-NECA binding sites in homogenates of NG108-15 cells. These sites have an affinity for 3H-NECA of .apprx.1 μM and are present at a d. of .apprx.10 pmol/mg protein. Unlabeled NECA, 2-chloroadenosine, IBMX and theophylline displace 3H-NECA binding, with an order of potency that suggests that the 3H-NECA binding site may represent an adenosine A2 receptor. However, PIA, cyclohexyladenosine and 2-phenylaminoadenosine produce no detectable displacement of 3H-NECA binding at concns. that produce a maximal stimulation of adenylate cyclase activity. Pretreatment of NG108-15 cells with either NECA or PIA produces a homologous desensitization of subsequent responses to all the adenosine analogs, with no effect on subsequent responses to a prostacyclin receptor agonist or NaF. This suggests that all the adenosine analogs examined activate an adenosine A2 receptor. Therefore, the 3H-NECA site at which PIA is inactive cannot represent this receptor. 53296-10-9

TT

RL: BIOL (Biological study)

(adenosine receptors binding of ethylcarboxamidoadenosine response to, adenylate cyclase in)

RN 53296-10-9 CAPLUS

Adenosine, 2-(phenylamino)- (CA INDEX NAME) CN

Absolute stereochemistry.

OSC.G 6 THERE ARE 6 CAPLUS RECORDS THAT CITE THIS RECORD (6 CITINGS)

```
1.6
     ANSWER 144 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN
     1990:30236 CAPLUS
DN
     112:30236
OREF 112:5069a,5072a
     Effects of adenosine A2 receptor agonists on nucleoside transport
ΑU
     Balwierczak, Joseph L.; Krulan, Christine M.; Wang, Zhi Chao; Chen, Jen;
    Res. Dep., Ciba-Geigy Corp., Summit, NJ, 07901, USA
CS
SO
     Journal of Pharmacology and Experimental Therapeutics (1989), 251(1),
     CODEN: JPETAB; ISSN: 0022-3565
DT
     Journal
```

English

LA

GΙ

A series of adenosine A2 receptor agonists I (R = CH2OH or CONHEt; R1 = AΒ Ph, etc.; X = 0 or CH2) were examined for their ability to activate adenosine A2 receptors and inhibit nucleoside transport. A2 receptor activation was measured by the ability of these adenosine agonists to relax porcine coronary smooth muscle, where I varied in their EC50 values. Nucleoside transport was measured as the nitrobenzylthioinosine-sensitive cellular accumulation of [3H]uridine into guinea pig erythrocytes at 22°. The initial velocity of transport was dependent on substrate concentration and a substrate-velocity curve yielded a Km of 78 μM and a Vmax of 0.31 mmol/L of cell water per h. Dipyridamole, a known potent inhibitor of nucleoside transport, blocked cellular [3H]uridine accumulation with an EC50 of 29.4 nM. Whereas a number of the adenosine agonists tested showed little or no inhibition of nucleoside transport, CV 1808 inhibited transport with an EC50 of 140 nM. In addition, 2 carbocyclic derivs. of CV 1808, CGS 23321 and CGS 23302 inhibited nucleoside transport with resp. EC50 values of 366 and 168 nM. The data suggest that these compds. have a different structure-activity relationship for adenosine A2 receptors and for the site mediating nucleoside transport inhibition. 53296-10-9, CV 1808 RL: BIOL (Biological study)

(nucleoside transport by erythrocyte response to and artery relaxation by)

RN 53296-10-9 CAPLUS

CN Adenosine, 2-(phenylamino)- (CA INDEX NAME)

Ι

OSC.G 5 THERE ARE 5 CAPLUS RECORDS THAT CITE THIS RECORD (5 CITINGS)

ANSWER 145 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN T.6 1989:574576 CAPLUS AN DN 111:174576 OREF 111:29091a,29094a Novel, stable congeners of the antiretroviral compound TΙ 2',3'-dideoxyadenosine ΑU Nair, Vasu; Buenger, Greg S. Dep. Chem., Univ. Iowa, Iowa City, IA, 52242, USA Journal of the American Chemical Society (1989), 111(22), 8502-4 CODEN: JACSAT; ISSN: 0002-7863 CS SO DT Journal LAEnglish CASREACT 111:174576 OS

GΤ

Absolute stereochemistry.

OSC.G 34 THERE ARE 34 CAPLUS RECORDS THAT CITE THIS RECORD (34 CITINGS)

```
1.6
     ANSWER 146 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN
     1989:511808 CAPLUS
     111:111808
DN
OREF 111:18687a,18690a
     Affinity chromatography of Al adenosine receptors of rat brain membranes
     Nakata, Hiroyasu
ΑIJ
CS
     Lab. Clin. Sci., Natl. Inst. Ment. Health, Bethesda, MD, 20892, USA
     Molecular Pharmacology (1989), 35(6), 780-6
CODEN: MOPMA3; ISSN: 0026-895X
SO
DT
     Journal
LΑ
     English
     The Al adenosine receptor of rat brain membranes has been solubilized with
AB
     digitonin and purified .apprx.150-fold by affinity chromatog.
     digitonin-solubilized receptor, which can be labeled with
     8-\text{cyclopentyl-1,3-[3H]} dipropylxanthine ([3H]DPCPX), was adsorbed on xanthine amine congener (XAC)-linked agarose. The interaction of the
     solubilized receptor activity with the affinity gel was biospecific.
     Adenosine agents blocked adsorption of solubilized receptor activity to
     the XAC-agarose with the appropriate Al adenosine selectivity. For
     agonists, 8-cyclopentyladenosine > (R)-phenylisopropyladenosine > CV-1808,
     whereas, for antagonists, 8-cyclopentyltheophylline (CPT) > XAC >
     isobutylmethylxanthine = theophylline. The same Al adenosine receptor specificity was observed for elution of [3H]DPCPX binding activity from the gel. XAC-agarose adsorbed 65-80% of the solubilized [3H]DPCPX binding
     activity and, after the gel was washed, 30-40% of the adsorbed activity
     could be eluted with 100 \mu\text{M} CPT, with specific binding activity of
     .apprx.60 pmol/mg of protein. The order of potency of adenosine agonists
      \hbox{\tt [8-Cyclopentyladenosine > (R)-phenylisopropyladenosine >}\\
     5'-N-ethylcarboxamidoadenosine > (S)-phenylisopropyladenosine] and
     antagonists (DPCPX > XAC > CPT > isobutylmethylxanthine) with the
     affinity-purified preparation was found to be similar to that of the
     solubilized adenosine A1 receptor. This affinity chromatog. procedure
     should prove to be valuable in the isolation and mol. characterization of
     Al adenosine receptors.
     53296-10-9, CV-1808
     RL: ANST (Analytical study)
         (Al adenosine receptors affinity chromatog. of brain membranes on
         xanthine amine congener-agarose gel response to)
     53296-10-9 CAPLUS
RN
```

Absolute stereochemistry.

CN

Adenosine, 2-(phenylamino) - (CA INDEX NAME)

```
osc.g 5
              THERE ARE 5 CAPLUS RECORDS THAT CITE THIS RECORD (5 CITINGS)
     ANSWER 147 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN
     1989:458249 CAPLUS
AN
DM
     111:58249
OREF 111:9899a,9902a
TΙ
     C2,N6-Disubstituted adenosines: synthesis and structure-activity
     relationships
     Trivedi, Bharat K.; Bruns, Robert F.
ΑIJ
CS
     Parke-Davis Pharm. Res. Div., Warner-Lambert Co., Ann Arbor, MI, 48105,
SO
     Journal of Medicinal Chemistry (1989), 32(8), 1667-73
     CODEN: JMCMAR; ISSN: 0022-2623
DT
     Journal
LΑ
     English
OS
     CASREACT 111:58249
GT
```

AB Extracellular adenosine receptors have been divided into two major subtypes, called A1 and A2. Substitution of the adenosine mol. with appropriate groups at C-2 or N-6 is known to impart selectivity for the A2 receptor over the A1 receptor. The present study investigated whether substitution at both C-2 and N-6 would have additive effects on the A2/A1 affinity ratio, thereby providing compds. with greater A2 selectivity than presently available agents. Disappointingly, additivity appeared to hold only when an A1-selective group was present at N-6. For instance, conversion of the A1-selective agonist I (R = H, R1 = cyclopentyl) to I (R = NHPh, R1 = cyclopentyl) resulted in a 70-fold shift in selectivity in favor of the A2 receptor, but the same substitution applied to the A2-selective agonist I [R = H, R1 = 3,5-(Me0)2C6H3CHPhCH2] resulted in a 100-fold loss of affinity with no change in A2-selectivity.

IT 53296-10-9

RL: PRP (Properties)
(adenosine receptor affinity of)

RN 53296-10-9 CAPLUS

CN Adenosine, 2-(phenylamino)- (CA INDEX NAME)

Absolute stereochemistry.

OSC.G 18 THERE ARE 18 CAPLUS RECORDS THAT CITE THIS RECORD (18 CITINGS)

L6 ANSWER 148 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN

AN 1989:451028 CAPLUS

DN 111:51028

OREF 111:8557a,8560a

TI An unusual receptor mediates adenosine-induced SA nodal bradycardia in dogs

AU Belloni, Francis L.; Belardinelli, Luiz; Halperin, Cidio; Hintze, Thomas H.

CS Dep. Physiol., New York Med. Coll., Valhalla, NY, 10595, USA

SO American Journal of Physiology (1989), 256(6, Pt. 2), H1553-H1564 CODEN: AJPHAP; ISSN: 0002-9513

DT Journal

LA English

AB To characterize the receptor mediating the neg. chronotropic effect of adenosine in dogs, expts. were performed on conscious dogs with chronically implanted cardiovascular instrumentation. Autonomic blockade was used to eliminate any reflex influences on heart rate. I.v. bolus injections of various adenosine analogs caused dose-dependent, aminophylline-blockable redns. in heart rate with a potency order for NECA:2-chloroadenosine:adenosine of 78:17:1. Dipyridamole enhanced the

potency of adenosine to equal that of 2-chloroadenosine. Moderately selective A1-receptor agonists (N6-(L-2-phenylisopropyl)-adenosine (R-PIA) and N6-cyclohexyladenosine) and an A2-selective agonist (2-phenylaminoadenosine) had no neg. chronotropic effect in the conscious dog. Adenosine and its analogs, including R-PIA, caused coronary vasodilation at smaller doses than were required to slow the heart rate. The selective Al-adenosine receptor blocker xanthine amine congener (XAC) antagonized the neg. chronotropic action of adenosine, but did so nonselectively, as the coronary vasodilative and neg. chronotropic actions of adenosine were antagonized equally well. The spontaneous contraction rate of isolated perfused dog right atrial prepns., which included the sinoatrial (SA) node, was reduced by intrasinoatrial node artery infusions of adenosine analogs with a potency ratio for NECA: adenosine: N6-cyclopentyladenosine: R-PIA of 100:15:2.3:1. Apparently, the adenosine receptor mediating the neg. chronotropic action of adenosine in the dog does not display the pharmacol. characteristics of either typical A1- or A2-adenosine receptors. Instead, either a novel adenosine receptor or an A1-receptor with unusual agonist and antagonist binding properties appears to exist in the dog's sinoatrial node.

IT 53296-10-9, 2-Phenylaminoadenosine

RL: BIOL (Biological study)

(heart rate response to, receptors and mediation of)

RN 53296-10-9 CAPLUS

CN Adenosine, 2-(phenylamino)- (CA INDEX NAME)

Absolute stereochemistry.

OSC.G 5 THERE ARE 5 CAPLUS RECORDS THAT CITE THIS RECORD (5 CITINGS)

L6 ANSWER 149 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN

AN 1989:421457 CAPLUS

DN 111:21457

OREF 111:3723a,3724a

TI NECA-induced hypomotility in mice: evidence for a predominantly central site of action

AU Durcan, Michael J.; Morgan, Philip F.

CS Lab. Clin. Stud., Natl. Inst. Alcohol Abuse Alcohol., Bethesda, MD, 20892, USA

SO Pharmacology, Biochemistry and Behavior (1989), 32(2), 487-90 CODEN: PBBHAU; ISSN: 0091-3057

DT Journal

LA English

The behavioral effects of 4 adenosine analogs (NECA, cyclohexyladenosine (CHA), cyclopentyladenosine (CPA), and CV 1808) were investigated in mice using a holeboard test, which measures both directed exploration (head-dipping) and locomotor activity. NECA, CHA, and CPA showed dose-related redns. in all the holeboard measures (NECA » CHA = CPA), but CV 1808 was inactive in all of the measures over the dose range tested. In a subsequent experiment NECA-induced hypomotility was attenuated by the adenosine receptor antagonists, theophylline (which is both centrally and peripherally active) and, though to a lesser extent, by the adenosine receptor antagonist 8-(p-sulfophenyl)theophylline (8-pSPT), which poorly penetrates the blood-brain barrier. Thus, NECA-induced hypomotility may be predominantly mediated centrally since the centrally active antagonist was the most effective in reversing the effect; however, peripheral mechanisms may also play a role since equimol. concns. of 8-pSPT elicit some reversal of NECA-induced hypomotility.

IT 53296-10-9, CV 1808

RL: BIOL (Biological study)

(motor behavior in presence of)

RN 53296-10-9 CAPLUS

CN Adenosine, 2-(phenylamino) - (CA INDEX NAME)

Absolute stereochemistry.

OSC.G 9 THERE ARE 9 CAPLUS RECORDS THAT CITE THIS RECORD (9 CITINGS)

L6 ANSWER 150 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN

AN 1989:417561 CAPLUS

DN 111:17561

OREF 111:2963a,2966a

 ${\tt TI}$ Comparison of the behavioral effects of adenosine agonists and dopamine antagonists in mice

AU Heffner, Thomas G.; Wiley, James N.; Williams, Ann E.; Bruns, Robert F.; Coughenour, Linda L.; Downs, David A.

CS Parke-Davis Pharm. Res. Div., Warner-Lambert Co., Ann Arbor, MI, 48105,

SO Psychopharmacology (Berlin, Germany) (1989), 98(1), 31-7 CODEN: PSCHDL; ISSN: 0033-3158

DT Journal

LA English
AB The ade

The adenosine agonists 5'-N-ethylcarboxamideadenosine (NECA), 2-chloroadenosine (2-CLA), N6-cyclohexyladenosine (CHA), N6-cyclopentyladenosine (CPA), $\hat{2}$ -(phenylamino)adenosine (CV-1808) and R and S isomers of N6-phenylisopropyladenosine (R-PIA and S-PIA) decreased spontaneous locomotor activity in mice and, except for CPA, did so at doses that did not impair motor coordination, a profile shared by dopamine antagonists. CV-1808, the only agent with higher affinity for A2 as compared with Al adenosine receptors, displayed the largest separation between locomotor inhibitory and ataxic potency. Like dopamine antagonists, NECA and CV-1808 also decreased hyperactivity caused by d-amphetamine at doses that did not cause ataxia whereas Al-selective adenosine agonists reduced amphetamine's effects only at ataxic doses. Unlike dopamine antagonists, adenosine agonists inhibited apomorphine-induced cage climbing only at doses that caused morphine-induced cage climbing only at doses that caused ataxia. Involvement of central adenosine receptors in these effects was suggested by the significant correlation obtained between potency for locomotor inhibition after i.p. and intracerebroventricular administration. Affinity for A1 but not A2 adenosine receptors was significantly correlated with potency for inducing ataxia. These results suggest that the behavioral profile of adenosine agonists in mice is related to their affinity for A1 and A2 adenosine receptors and indicate that adenosine agonists produce certain behavioral effects that are similar to those seen with dopamine antagonists.

IT 53296-10-9, 2-(Phenylamino) adenosine

RL: BIOL (Biological study)

(behavioral response to, as adenosine agonist, antipsychotic activity in relation to)

RN 53296-10-9 CAPLUS

CN Adenosine, 2-(phenylamino)- (CA INDEX NAME)

OSC.G 43 THERE ARE 43 CAPLUS RECORDS THAT CITE THIS RECORD (43 CITINGS)

```
T.6
     ANSWER 151 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN
     1989:108716 CAPLUS
AN
DN
     110:108716
OREF 110:17818h,17819a
     Correlation between binding affinities for brain Al and A2 receptors of
TΤ
     adenosine agonists and antagonists and their effects on heart rate and
     coronary vascular tone
ΑU
     Oei, H. H.; Ghai, G. R.; Zoganas, H. C.; Stone, G. A.; Zimmerman, M. B.;
     Field, F. P.; Williams, M.
Pharm. Div., Ciba-Geigy Corp., Summit, NJ, 07901, USA
CS
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- SO Journal of Pharmacology and Experimental Therapeutics (1988), 247(3), CODEN: JPETAB; ISSN: 0022-3565
- DT Journal
- LA English
- The activities of a series of A1 and A2 adenosine receptor agonists and AΒ antagonists were determined using radioligand binding techniques in rat brain tissues. The potencies of these agonists on heart rate and coronary vascular tone were also assessed in the perfused working rat heart preparation The order of potency of these agonists in producing neg. chronotropic effects was similar to the rank order for their Al receptor binding activities [6-N-cyclohexyladenosine (CHA) = 6-N-(R-phenylisopropyl) adenosine <math>> 5'-N-ethylcarboxamideadenosine (NECA) = 6-N-ethylcarboxamideadenosine (NECA) = 6-N-ethylcar2-chloroadenosine > 2-phenylaminoadenosine] with a correlation coefficient of 0.97. Their order of potency in decreasing coronary vascular tone followed the same rank order as their A2 receptor binding activities with a correlation coefficient of 0.97 (NECA > 2-chloroadenosine = 6-N-(R-phenylisopropyl)-adenosine = 2-phenylaminoadenosine > CHA). In addition, the antagonists 8-[4-[[[(2aminoethyl)amino]carbonyl]methyl]ox]phenyl-1,3-dipropylxanthine (XAC), 1,3-dipropyl-8-(2-amino-4-chlorophenyl)xanthine (PACPX), and 8-phenyltheophylline (8-PT) blocked the neg. chronotropic effect of CHA and the vasodilatory effect of NECA in a concentration-dependent manner. same order of potency of the antagonists was noted in blocking CHA-induced bradycardia and A1 receptor binding activities (XAC = PACPX > 8-PT). A similar correlation was observed for their effects in blocking NECA-induced vasodilation and A2 receptor binding activity (XAC > PACPX > 8-PT). The results obtained with both agonists and antagonists indicate a pos. correlation between adenosine receptor-mediated effects in the heart and adenosine receptor binding activities in brain tissues; thus, providing support for similarities of these receptors in heart and brain tissues. 53296-10-9, 2-Phenylaminoadenosine RL: BIOL (Biological study) (receptor binding of, in brain, coronary vascular tone and heart rate
- ΤТ

in relation to)

- RM 53296-10-9 CAPLUS
- Adenosine, 2-(phenylamino)- (CA INDEX NAME) CN

OSC.G 5 THERE ARE 5 CAPLUS RECORDS THAT CITE THIS RECORD (5 CITINGS)

L6 ANSWER 152 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN

AN 1988:623029 CAPLUS

DN 109:223029

OREF 109:36749a,36752a

 ${\tt TI}$ Characterization of agonist radioligand interactions with porcine atrial A1 adenosine receptors

AU Leid, Mark; Schimerlik, Michael I.; Murray, Thomas F.

CS Coll. Pharm., Oregon State Univ., Corvallis, OR, 97331, USA

SO Molecular Pharmacology (1988), 34(3), 334-9 CODEN: MOPMA3; ISSN: 0026-895X

DT Journal

LA English

The agonist radioligand (-)-N6-[1251]-p-hydroxyphenylisopropyladenosine AΒ ([1251]HPIA) was used to characterize adenosine recognition sites in porcine atrial membranes. [1251] HPIA showed saturable binding to an apparently homogeneous population of sites with a maximum binding capacity of 35 fmol/mg protein and an equilibrium dissociation constant of 2.5 nM. Kinetics expts. were performed to address the mol. mechanism of [1251]HPIA binding in porcine atrial membranes. [1251] HPIA apparently interacts with the cardiac adenosine receptor in a simple bimol. reaction. A kinetically derived [125]] HPIA dissociation constant (2.4 nM) was in good agreement with that parameter measured at equilibrium Guanyl nucleotides neg. modulated [1251] HPIA binding by increasing its rate of dissociation This finding is consonant with the formation of a ternary complex in porcine atrial membranes, consisting of ligand, receptor, and guanyl nucleotide-binding protein. Prototypic adenosine receptor agonists and antagonists inhibited specific binding in a manner consistent with the labeling of an A1 adenosine receptor. Apparently, the adenosine receptor present in porcine atrial membranes, as labeled by [1251] HPIA, is of the Al subtype.

IT 53296-10-9, 2-Phenylaminoadenosine

RL: BIOL (Biological study)

(hydroxyphenylisopropyladenosine binding by receptors of atrium inhibition $b\boldsymbol{v})$

RN 53296-10-9 CAPLUS

CN Adenosine, 2-(phenylamino)- (CA INDEX NAME)

Absolute stereochemistry.

OSC.G 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

L6 ANSWER 153 OF 195 CAPLUS COPYRIGHT 2010 ACS on SIN

AN 1988:611374 CAPLUS

DN 109:211374

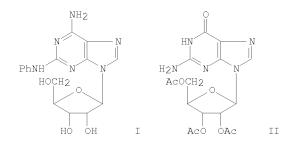
OREF 109:34987a,34990a

TI Studies toward synthesis of C-2 substituted adenosines: an efficient synthesis of 2-(phenylamino)adenosine [CV-1808]

AU Trivedi, Bharat K.

10/598,520

```
CS
     Dep. Chem., Warner/Lambert Co., Ann Arbor, MI, 48105, USA
     Nucleosides & Nucleotides (1988), 7(3), 393-402
SO
     CODEN: NUNUD5; ISSN: 0732-8311
DT
     Journal
LΑ
     English
     CASREACT 109:211374
OS
GΙ
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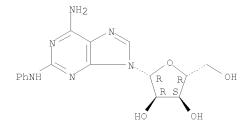
2-(Phenylamino)adenosine (I) was prepared from guanosine triacetate (II) by AB sequential 2-bromination with amyl nitrite and CHBr3, 2-phenylamination with PhNH2, 6-chlorination with POCl3 in MeCN in the presence of PhNMe2 and Et4NCl, and finally treatment with NH3/MeOH. Also prepared were (R) - N - (1 - methyl - 2 - phenylethyl) - 2 - (phenylamino) adenosine,2-(phenylthio) adenosine, and (R)-N-(1-methyl-2-phenylethyl)-2-(phenylthio) adenosine. ΙT 53296-10-9P, 2-(Phenylamino)adenosine RL: SPN (Synthetic preparation); PREP (Preparation)

(improved synthesis of)

53296-10-9 CAPLUS RN

Adenosine, 2-(phenylamino)- (CA INDEX NAME) CN

Absolute stereochemistry.



OSC.G THERE ARE 6 CAPLUS RECORDS THAT CITE THIS RECORD (6 CITINGS)

ANSWER 154 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN

1988:523020 CAPLUS AN

109:123020 DN

OREF 109:20355a,20358a

Behavior induced by putative nociceptive neurotransmitters is inhibited by TΙ adenosine or adenosine analogs coadministered intrathecally

DeLander, Gary E.; Wahl, Jeffrey J. ΑU

CS Coll. Pharm., Oregon State Univ., Corvallis, OR, 97331, USA

SO Journal of Pharmacology and Experimental Therapeutics (1988), 246(2), 565-70

CODEN: JPETAB; ISSN: 0022-3565

DT Journal

LA English

The role of adenosine in antinociception was studied by examining the effect of adenosine agonists on behavior induced by 2 putative spinal nociceptive neurotransmitters, substance P and N-methyl-D-aspartate. Coadministration of each of several adenosine agonists with substance P or N-methyl-D-aspartate intrathecally significantly decreased the intensity of behaviors induced by putative nociceptive neurotransmitters in mice. Adenosine agonist-mediated inhibition was antagonized by theophylline supporting adenosine agonist interactions with cell membrane surface

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adenosine receptors. Rank order potencies were determined for several adenosine analogs with varying selectivity for A1 and A2 adenosine receptor subtypes. However, rank order potencies did not correlate well with rank order potencies reported previously for adenosine receptor subtypes in biochem. assays. Evidently, adenosine inhibits behavior induced by nociceptive neurotransmitters interacting with spinal substance P or N-methyl-D-aspartate receptors. Furthermore, observations provide addnl. support for endogenous antinociceptive pathways that utilize adenosine at spinal sites.

53296-10-9, 2-Phenylaminoadenosine RL: BIOL (Biological study) (nociception inhibition by)

RN

53296-10-9 CAPLUS Adenosine, 2-(phenylamino)- (CA INDEX NAME) CN

Absolute stereochemistry.

OSC.G 32 THERE ARE 32 CAPLUS RECORDS THAT CITE THIS RECORD (32 CITINGS)

ANSWER 155 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN L6

AN 1988:438171 CAPLUS

DN 109:38171

OREF 109:6475a,6478a

N6-[2-(3,5-dimethoxyphenyl)-2-(2-methylphenyl)ethyl] adenosine and its uronamide derivatives. Novel adenosine agonists with both high affinity and high selectivity for the adenosine A2 receptor

Bridges, Alexander J.; Bruns, Robert F.; Ortwine, Daniel F.; Priebe, Steven R.; Szotek, Deedee L.; Trivedi, Bharat K. ΑU

CS Parke-Davis Pharm. Res. Div., Warner-Lambert Co., Ann Arbor, MI, 48105,

SO Journal of Medicinal Chemistry (1988), 31(7), 1282-5 CODEN: JMCMAR; ISSN: 0022-2623

DT Journal

English LAOS CASREACT 109:38171

GΙ

Several N6-(diarylethyl) adenosines, e.g., title compound I, were prepared by treating the corresponding 2,2-diarylethylamines with 6-chloropurine

riboside. Also prepared were uronamide derivs. II (R = Et, Me, cyclopropyl). Receptor binding affinities of the compds. prepared and of several other N6-substituted adenosines are given and discussed.

53296-10-9 TT

> RL: RCT (Reactant); RACT (Reactant or reagent) (adenosine agonist, receptor binding affinity of)

53296-10-9 CAPLUS RN

Adenosine, 2-(phenylamino)- (CA INDEX NAME) CN

Absolute stereochemistry.

OSC.G 26 THERE ARE 26 CAPLUS RECORDS THAT CITE THIS RECORD (27 CITINGS)

1.6 ANSWER 156 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN

1988:105930 CAPLUS AN

108:105930 DN

OREF 108:17195a,17198a

Definition of subclasses of adenosine receptors associated with adenylate TΙ cyclase: interaction of adenosine analogs with inhibitory A1 receptors and stimulatory A2 receptors

ΑU

Ukena, Dieter; Olsson, Ray A.; Daly, John W. Natl. Inst. Arthritis, Diabetes, Dig. Kidney Dis., Natl. Inst. Health, CS Bethesda, MD, 20892, USA

Canadian Journal of Physiology and Pharmacology (1987), 65(3), 365-76 SO CODEN: CJPPA3; ISSN: 0008-4212

DT Journal

English LΑ

The structure-activity relationships of 63 adenosine analogs as agonists AΒ for the Al adenosine receptors that mediate inhibition of adenylate cyclase activity in rat fat cells and for the A2 adenosine receptors that mediate stimulation of adenylate cyclase in rat pheochromocytoma PC12 cells and human platelets were determined The lack of correspondence between the structure-activity relationships of these analogs at the A1 and A2receptors appear definitive in terms of establishing the existence of Al and A2 subclasses of adenosine receptors. However, significant differences in the agonist profiles at A2 receptors of platelet and PC12 indicate a certain degree of structural heterogeneity within the members $% \left(1\right) =\left(1\right) \left(1\right) \left$ of the A2 adenosine receptor subclass. Whether such differences are due to different species or different cell types is not known. A set of adenosine analogs, such as N6-cyclohexyl- (I), N6-R-, and N6-S-1-phenyl-2-propyladenosine, 5'-N-ethylcarboxamidoadenosine and its N6-cyclohexyl derivative, 2-chloroadenosine, and 2-phenylaminoadenosine,

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appear to represent a series of analogs useful for pharmacol. characterization of A1 and A2 classes of adenosine receptors. 53296-10-9, 2-Phenylaminoadenosine RL: PRP (Properties)

(interaction of, with A1 and A2 adenosine receptors, of humans and laboratory animals, structure in relation to) 53296-10-9 CAPLUS

RN

Adenosine, 2-(phenylamino)- (CA INDEX NAME) CN

Absolute stereochemistry.

OSC.G 1.3 THERE ARE 13 CAPLUS RECORDS THAT CITE THIS RECORD (13 CITINGS)

1.6 ANSWER 157 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN

1988:16690 CAPLUS AN

108:16690 DN

OREF 108:2729a,2732a

Correlation of adenosine receptor affinities and cardiovascular activity TΙ

Hamilton, H. W.; Taylor, M. D.; Steffen, R. P.; Haleen, S. J.; Bruns, R. ΑIJ

CS Dep. Chem., Warner-Lambert/Parke-Davis Pharm. Res., Ann Arbor, MI, 48105, USA

Life Sciences (1987), 41(20), 2295-302 CODEN: LIFSAK; ISSN: 0024-3205 SO

DT Journal

LA English

Binding affinities of 28 adenosine analogs at A1 adenosine receptors [rat AΒ whole brain membranes, [3H]N6-cyclohexyladenosine (CHA)], and at A2 adenosine receptors [rat striatal membranes, 5'-N-ethylcarboxamidoadenosine (NECA) were compared to their EC25 (25% change from control) values for decreasing heart rate and increasing coronary flow in the isolated rat heart. Heart rate (an A1 response) correlated with Al binding affinity but not with A2 binding affinity; conversely, coronary flow (an A2 response) correlated with A2 binding affinity but not with A1 binding affinity. Apparently, the brain A1 and A2 receptors, studied by binding methods, bear close similarities to their resp. counterparts in the heart, studied by means of functional responses.

53296-10-9

RL: BIOL (Biological study) (adenosine receptor affinity for, in brain, cardiovascular activity in relation to)

53296-10-9 CAPLUS RN

Adenosine, 2-(phenylamino)- (CA INDEX NAME)

Absolute stereochemistry.

OSC.G THERE ARE 8 CAPLUS RECORDS THAT CITE THIS RECORD (8 CITINGS)

ANSWER 158 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN

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AN
     1987:612266 CAPLUS
     107:212266
DN
OREF 107:33919a,33922a
TΤ
     Identification of Al and A2 adenosine receptors in the rat spinal cord
     Choca, Jose Ignacio; Proudfit, Herbert K.; Green, Richard D.
     Coll. Med., Univ. Illinois, Chicago, IL, 60680, USA
CS
     Journal of Pharmacology and Experimental Therapeutics (1987), 242(3),
     905-10
     CODEN: JPETAB; ISSN: 0022-3565
DT
     Journal
LΑ
     English
     The adenosine receptors in membranes prepared from rat ventral and dorsal
AB
     lumbar spinal cord were characterized by comparing the binding
     characteristics of [3H]5'-N-ethylcarboxamide adenosine ([3H]NECA), an
     agonist with nearly equal affinities at the A1 and A2 adenosine receptor
     subtypes, with those of [3H]N6-[(R)-1-methyl-2-phenylethyl]adenosine
     ([3H]R-PIA), an A1-selective agonist. Saturation isotherms of the ventral and
     dorsal spinal cord yielded dissociation constant values 1.9-2.3 nM for [3H]R-PIA
     and 18.1-19.5 nM for [3H]NECA. The maximum binding capacity (Bmax) for
     [3H]NECA was approx. twice the Bmax for [3H]R-PIA in ventral and dorsal
     halves (267 vs. 128 fmol/mg protein and 402 vs. 206 fmol/mg protein,
     resp.). Displacement of specific [3H] NECA binding by the A2-selective
     agonist, 2-(phenylamino)adenosine, the relatively nonselective antagonist,
     theophylline and 6 Al-selective agonists, R-PIA, S-PIA,
     N6-(cyclohexyl)adenosine, N6-(cyclopentyl)adenosine,
     N6-(m-aminophenyl)adenosine, and N6-(m-iodophenyl)adenosine, revealed 2
     [3H] NECA binding components with the characteristics of A1 and A2
     receptors. All curves best fit a 2-site model when analyzed by the
     computer program LIGAND. R-PIA, N6-(cyclohexyl)adenosine, and
     N6-(cyclopentyl)adenosine were the most potent displacers at the 1st site
     (Ki = 0.6-1.4 nM). All Al-selective agonists were poor displacers of [3H]NECA at the 2nd site (Ki = 0.6-18.6 \muM). The A2-selective agonist,
     2-(phenylamino)adenosine, was as potent as R-PIA in displacing [3H]NECA from this site with a Ki value 0.57 \mu M. Finally, the Al and A2
     adenosine receptor-mediated inhibition and stimulation of adenylate
     cyclase were demonstrated directly in synaptic membranes prepared from the
     spinal cord.
     53296-10-9, 2-(Phenylamino)adenosine
     RL: PROC (Process)
         (receptor binding of, in spinal cord)
RN
     53296-10-9 CAPLUS
     Adenosine, 2-(phenylamino)- (CA INDEX NAME)
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PhNH N R R O OH
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OSC.G
                THERE ARE 59 CAPLUS RECORDS THAT CITE THIS RECORD (59 CITINGS)
T.6
     ANSWER 159 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN
     1987:508844 CAPLUS
AN
     107:108844
OREF 107:17515a,17518a
     The effects of parenteral injections of adenosine and its analogs on blood
TΙ
     pressure and heart rate in the rat
     Barraco, Robin A.; Marcantonio, David R.; Phillis, John W.; Campbell, W.
     Richard
     Sch. Med., Wayne State Univ., Detroit, MI, 48201, USA General Pharmacology (1987), 18(4), 405-16 CODEN: GEPHDP; ISSN: 0306-3623
CS
SO
DT
     Journal
T.A
     English
     The dose-response effects of i.v. adenosine and its analogs on
```

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cardiovascular parameters were examined in rats. 5'-N-Ethylcarboxamidoadenosine (NECA) was by far the most potent analog in reducing mean arterial blood (PA) pressure, whereas N6-(3-penty1)-adenosine exerted the most potent bradycardic action. The ${
m N6}-{
m substituted}$ (S-)-diastereoisomers were substantially less potent in reducing PA and heart rate than NECA and the N6-substituted (R)-diastereoisomers. The results of the study are consistent with the notion that the bradycardiac action of adenosine is principally mediated via A1 receptors, whereas the vasodilator action of adenosine is mediated via A2 receptors. It is also apparent that adenosine is rapidly removed from the circulation and inactivated. In contrast, the cardiovascular effects of the adenosine analogs persist, to varying degrees, much longer than those of adenosine itself.

53296-10-9, 2-Phenylaminoadenosine

RL: BIOL (Biological study)

(blood pressure and heart rate response to, structure in relation to)

RN 53296-10-9 CAPLUS

Adenosine, 2-(phenylamino) - (CA INDEX NAME)

Absolute stereochemistry.

OSC.G THERE ARE 4 CAPLUS RECORDS THAT CITE THIS RECORD (4 CITINGS)

ANSWER 160 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN 1.6

AN 1987:497042 CAPLUS

107:97042

OREF 107:15844h,15845a

Synthesis of a mutagenic nucleoside, 2'-deoxy-2-(p-nitrophenyl)adenosine ТΤ

Matsuda, Akira; Ueda, Tohru; Ohara, Yoshiko; Satake, Hiroyasu; Negishi, Kazuo; Wataya, Yusuke; Hayatsu, Hikoya Fac. Pharm. Sci., Hokkaido Univ., Sapporo, 060, Japan ΑU

CS

Nucleic Acids Symposium Series (1986), 17(Symp. Nucleic Acids Chem., 14th, SO 1986), 141-3

CODEN: NACSD8; ISSN: 0261-3166

DT Journal

English LA

OS CASREACT 107:97042

GΙ

The reaction of 2-amino-6-chloropurine riboside with isoamyl nitrite in C6H6 in the presence of Cu2O, followed by treatment with NH3/MeOH, gave 2-phenyladenosine I (R = H, R1 = OH) (II). The crude sample of II was found to be mutagenic to bacteria (Salmonella typhimurium TA 98 and TA 100, without metabolic activation). When this material was subjected to high pressure liquid chromatog., the mutagenic activity was found only in contaminating minor components, whose structures were assigned as 2-(m-1)and p-nitrophenyl)adenosines (I; R = m-, p-NO2; R1 = OH). In order to study structure-activity relationships, several nucleoside and base analogs were prepared Among them, 2'-deoxy-2-(p-nitrophenyl)adenosine (I; R = p-02N, R1 = H) was the most potent mutagen as tested either with TA 98 or TA 100.

ΤТ 109875-49-2P

> RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(preparation and mutagenic activity of)

RN 109875-49-2 CAPLUS

Adenosine, 2-(4-aminophenyl)- (9CI) (CA INDEX NAME) CN

Absolute stereochemistry.

ANSWER 161 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN 1.6

1987:78255 CAPLUS AN

DN 106:78255

106:12705a,12708a OREF

Species differences in structure-activity relationships of adenosine TΤ agonists and xanthine antagonists at brain Al adenosine receptors

ΑU Ukena, Dieter; Jacobson, Kenneth A.; Padgett, William L.; Ayala, Cristina; Shamim, Mah T.; Kirk, Kenneth L.; Olsson, Ray O.; Daly, John W.

Natl. Inst. Diabetes, and Dig. Kidney Dis., Natl. Inst. Health, Bethesda, CS MD, 20892, USA

FEBS Letters (1986), 209(1), 122-8 CODEN: FEBLAL; ISSN: 0014-5793 SO

DT Journal

LΑ English AB

A series of 28 adenosine analogs and 17 xanthines were assessed as inhibitors of N6-[-[3H] phenylisopropyladenosine binding to A1 adenosine receptors in membranes from rat, calf, and guinea pig brain. Potencies of N6-alkyl- and N6-cycloalkyladenosines are similar in the different species. However, the presence of an aryl or heteroaryl moiety in the N6 substituent results in marked species differences with certain such analogs being about 30-fold more potent at receptors in calf than in guinea pig brain. Potencies at receptors in rat brain are intermediate. Conversely, 2-chloroadenosine [146-77-0] and 5'-N-ethylcarboxamidoadenosine [35920-39-9] are .apprx.10-fold less potent at receptors in calf brain than in guinea pig brain. Potencies of xanthines, such as theophylline [58-55-9], caffeine [58-08-2] and 1,3-dipropylxanthine [31542-62-8] are similar in the different species. However, the presence of an 8-Ph or 8-cycloalkyl substituent results in marked species differences. For example, a xanthine amine conjugate of 1,3-dipropyl-8-phenylxanthine is 9-fold more potent at receptors in calf than in rat brain and 110-fold more potent in calf than in quinea pig brain. Such differences indicate that brain Al adenosine receptors are not identical in recognition sites for either agonists or antagonists in different mammalian species.

ΤТ 53296-10-9

RL: BIOL (Biological study)

(adenosine Al receptor binding by, structure and species in relation to)

53296-10-9 CAPLUS

Adenosine, 2-(phenylamino) - (CA INDEX NAME)

OSC.G 22 THERE ARE 22 CAPLUS RECORDS THAT CITE THIS RECORD (22 CITINGS)

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T.6
    ANSWER 162 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN
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1987:16911 CAPLUS AN

DN 106:16911

OREF 106:2905a,2908a

TT The effects of adenosine agonists on human neutrophil function

Schrier, Denis J.; Imre, Kathleen M. ΑU

CS Warner-Lambert/Parke-Davis Pharm. Res., Ann Arbor, MI, 48105, USA

Journal of Immunology (1986), 137(10), 3284-9 CODEN: JOIMA3; ISSN: 0022-1767

DT Journal

SO

LA English

AB Adenosine is a potent physiol. substance with a variety of biol. activities. Many of the effects of adenosine appear to be mediated by 2 populations of cell-surface adenosine receptors (A1 and A2). The effects were examined of several adenosine receptor agonists on human neutrophils stimulated with the chemotactic peptide N-formyl-Met-Leu-Phe (FMLP). Both superoxide generation and degranulation (as assessed by lysozyme release) were inhibited. Inhibition correlated most strongly with A2 receptor affinity for both parameters and was reversible by the adenosine receptor antagonist 8-phenyltheophylline. Because toxic 0 metabolites and degradative enzymes are implicated in a variety of inflammatory disorders, adenosine agonists may be useful probes to help expand knowledge of the role of these mediators in human disease.

53296-10-9, 2-(Phenylamino)-adenosine

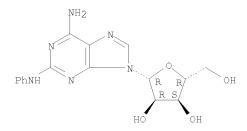
RL: BIOL (Biological study)

(neutrophil function response to, purinergic receptors in, of human)

RN 53296-10-9 CAPLUS

Adenosine, 2-(phenylamino) - (CA INDEX NAME)

Absolute stereochemistry.



OSC.G THERE ARE 33 CAPLUS RECORDS THAT CITE THIS RECORD (33 CITINGS)

T.6 ANSWER 163 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN

1987:13071 CAPLUS AN

106:13071

OREF 106:2157a,2160a

Adenosine analogs mediating depressant effects on synaptic transmission in TΙ rat hippocampus: structure-activity relationships for the N6 subregion

Dunwiddie, Thomas V.; Worth, Thomas S.; Olsson, Ray A. ΑU

Veterans Adm. Med. Res. Serv., Denver, CO, 80220, USA CS

Naunyn-Schmiedeberg's Archives of Pharmacology (1986), 334(1), 77-85 SO CODEN: NSAPCC; ISSN: 0028-1298

DT Journal

English LΑ

The potencies of a number of N6-substituted adenosine analogs in depressing AB excitatory synaptic transmission were investigated in slices of rat

hippocampus, an electrophysiol. response mediated by receptors of the A1 subtype. These potencies correlated well with previously reported affinities of these analogs for Al receptor sites in brain, but not with coronary vasodilation in the dog heart, an A2 receptor-mediated response. Analogs with alkyl or aryl substituents at the N6 position were generally more potent than adenosine [41552-82-3], although analogs with a tertiary C attached directly to the N6-N were usually only weakly active. Although it has been suggested that there may be a subregion of the Al receptor with some specificity for aryl groups, these expts. did not suggest that this was the case. Analogs with chiral centers attached to the N6-N usually displayed stereoselectivity, with R-isomers more potent than the S-isomers. The mechanism underlying this selectivity appeared to be both a facilitating effect of alkyl substituents in the Pr Cl position of N6-1-phenyl-2(R)-propyladenosine (R-PIA) [38594-96-6], and a hindering effect of substituents in the position normally occupied by the H attached to Pr C2 of R-PIA. Although there are some similarities in terms of requirements for activity at A1 and A2 receptors, differences between the N6 subregions of these receptors are sufficient to permit the development of selective analogs for these 2 receptor sites.

53296-10-9 TT

RL: BIOL (Biological study)

(synaptic neurotransmission in hippocampus inhibition by, structure in relation to)

53296-10-9 CAPLUS RN

Adenosine, 2-(phenylamino) - (CA INDEX NAME) CN

Absolute stereochemistry.

OSC.G THERE ARE 6 CAPLUS RECORDS THAT CITE THIS RECORD (6 CITINGS)

L6 ANSWER 164 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN

1986:526814 CAPLUS AN

DN 105:126814

OREF 105:20297a,20300a

Synthetic studies of 2-substituted adenosines. III. Coronary TΙ vasodilatory activity of 2-arylaminoadenosines

ΑU Marumoto, Ryuji; Shima, Shunsuke; Omura, Kiyoshi; Tanabe, Masao; Fujiwara, Syuji; Furukawa, Yoshiyasu Cent. Res. Div., Takeda Chem. Ind., Ltd., Osaka, 532, Japan

CS

Takeda Kenkyushoho (1985), 44(3/4), 220-30 CODEN: TAKHAA; ISSN: 0371-5167 SO

DT Journal

English LΑ GT

NH2 PhNH HOCH2 Т

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AB Sixty-one derivs. of 2-phenylaminoadenosine (CV-1808) (I) were synthesized and their coronary vasodilatory activities were tested after intracoronary administration in anesthetized dogs. Introduction of a variety of substituents into the 4-position of the Ph group led to a considerable decrease in the activity; substitution at the 3-position did not alter the potency, whereas substitution at the 3- or 4-position with a carbamoyl or acyl group increased the activity approx. 10 times. Replacement of the Ph group in I derivs. by a 3-pyridyl ring also resulted in an increase in the activity. Structure-activity relations are discussed.
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53296-10-9DP, derivs. 53296-10-9P
     53296-19-8P
                   53296-20-1P
                                  53296-21-2P
     70590-18-0P
                   70590-20-4P
                                  70590-22-6P
     70590-23-7P
                   70590-25-9P
                                  70590-26-0P
     70590-27-1P
                   70590-28-2P
                                  70590-29-3P
     70590-30-6P
                                  71231-77-1P
                   71231-76-0P
     71231-78-2P
                   71231-79-3P
                                  71231-80-6P
     71231-81-7P
                   71231-82-8P
                                  71231-83-9P
     71231-84-0P
                   71231-85-1P
                                  71231-86-2P
     74615-32-0P
                   74615-33-1P
                                  74615-36-4P
     74615-37-5P
                   74615-38-6P
                                  74615-39-7P
     74615-40-0P
                   74615-41-1P
                                  74615-42-2P
     75106-29-5P
                   75106-30-8P
                                  75106-32-0P
     75106-33-1P
                   76888-18-1P
                                  102711-68-2P
     102711-69-3P
                    102711-70-6P
                                    102711-71-7P
     102711-72-8P
                    102711-87-5P
                                    102711-88-6P
     102711-89-7P
                    102711-90-0P
                                    102711-91-1P
                    102711-93-3P
     102711-92-2P
                                    102711-94-4P
     102711-95-5P
                    102711-96-6P
                                    102711-97-7P
     102711-98-8P
                    102711-99-9P
                                    102712-00-5P
     102712-01-6P
                    102712-02-7P
     RL: SPN (Synthetic preparation); PREP (Preparation)
        (preparation and vasodilator activity of, structure in relation to)
RN
     53296-10-9 CAPLUS
     Adenosine, 2-(phenylamino)- (CA INDEX NAME)
CN
```

Absolute stereochemistry.

RN 53296-10-9 CAPLUS CN Adenosine, 2-(phenylamino)- (CA INDEX NAME)

Absolute stereochemistry.

RN 53296-19-8 CAPLUS CN Adenosine, 2-[(4-methoxyphenyl)amino]- (9CI) (CA INDEX NAME)

RN 53296-20-1 CAPLUS

CN Adenosine, 2-[(4-methylphenyl)amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 53296-21-2 CAPLUS

CN Adenosine, 2-[(4-chlorophenyl)amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 70590-18-0 CAPLUS

CN Adenosine, 2-[(3-chlorophenyl)amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 70590-20-4 CAPLUS

CN Adenosine, 2-[(3,4-dimethylphenyl)amino]- (9CI) (CA INDEX NAME)

10/598,520

RN

70590-22-6 CAPLUS Adenosine, 2-[(3-methoxyphenyl)amino]- (9CI) (CA INDEX NAME) CN

Absolute stereochemistry.

70590-23-7 CAPLUS

Adenosine, 2-[(3-methylphenyl)amino]- (9CI) (CA INDEX NAME) CN

Absolute stereochemistry.

RN 70590-25-9 CAPLUS

Adenosine, 2-[(3-fluorophenyl)amino]- (9CI) (CA INDEX NAME) ${\tt CN}$

Absolute stereochemistry.

70590-26-0 CAPLUS RN

Adenosine, 2-[(3-bromophenyl)amino]- (9CI) (CA INDEX NAME)

RN 70590-27-1 CAPLUS

CN Adenosine, 2-[(3-chloro-4-methylphenyl)amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 70590-28-2 CAPLUS

CN Adenosine, 2-[(3,4-dimethoxyphenyl)amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 70590-29-3 CAPLUS

CN Adenosine, 2-[(3-chloro-4-methoxyphenyl)amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 70590-30-6 CAPLUS

CN Adenosine, 2-[(3,4-dichlorophenyl)amino]- (9CI) (CA INDEX NAME)

RN

71231-76-0 CAPLUS Adenosine, 2-[(2-methylphenyl)amino]- (9CI) (CA INDEX NAME) CN

Absolute stereochemistry.

71231-77-1 CAPLUS

Adenosine, 2-[(2-methoxyphenyl)amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 71231-78-2 CAPLUS

Adenosine, 2-[(4-bromophenyl)amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

71231-79-3 CAPLUS RN

Adenosine, 2-[(4-fluorophenyl)amino]- (9CI) (CA INDEX NAME)

RN

71231-80-6 CAPLUS Adenosine, 2-[(2-fluorophenyl)amino]- (9CI) (CA INDEX NAME) CN

Absolute stereochemistry.

71231-81-7 CAPLUS

Adenosine, 2-[(4-ethylphenyl)amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 71231-82-8 CAPLUS

Adenosine, 2-[(2,5-dimethylphenyl)amino]- (9CI) (CA INDEX NAME) ${\tt CN}$

Absolute stereochemistry.

71231-83-9 CAPLUS RN

Adenosine, 2-[(3,5-dimethylphenyl)amino]- (9CI) (CA INDEX NAME)

RN 71231-84-0 CAPLUS

CN Adenosine, 2-[(2,4-dimethylphenyl)amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 71231-85-1 CAPLUS

CN Adenosine, 2-[(4-chloro-2-methoxyphenyl)amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 71231-86-2 CAPLUS

CN Adenosine, 2-[(2,3-dichlorophenyl)amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 74615-32-0 CAPLUS

CN Adenosine, 2-[[4-(aminocarbonyl)phenyl]amino]- (9CI) (CA INDEX NAME)

74615-33-1 CAPLUS RN

Adenosine, 2-[[4-[(propylamino)carbonyl]phenyl]amino]- (9CI) (CA INDEX CNNAME)

Absolute stereochemistry.

RN

74615-36-4 CAPLUS
Adenosine, 2-[[3-(aminocarbonyl)phenyl]amino]- (9CI) (CA INDEX NAME) ${\tt CN}$

Absolute stereochemistry.

74615-37-5 CAPLUS RN

CN Adenosine, 2-[[4-(aminocarbonyl)-3-chlorophenyl]amino]- (9CI) (CA INDEX

Absolute stereochemistry.

RN 74615-38-6 CAPLUS

Adenosine, 2-[[4-[(methylamino)carbonyl]phenyl]amino]- (9CI) (CA INDEX CNNAME)

74615-39-7 CAPLUS RN

Adenosine, 2-[[4-[(ethylamino)carbonyl]phenyl]amino]- (9CI) (CA INDEX CNNAME)

Absolute stereochemistry.

RN

74615-40-0 CAPLUS
Adenosine, 2-[[4-[(cyclohexylamino)carbonyl]phenyl]amino]- (9CI) (CA CNINDEX NAME)

Absolute stereochemistry.

74615-41-1 CAPLUS RN

 ${\tt CN}$ Adenosine, 2-[[4-[(phenylamino)carbonyl]phenyl]amino]- (9CI) (CA INDEX NAME)

RN

74615-42-2 CAPLUS Adenosine, 2-[[4-[(dimethylamino)carbonyl]phenyl]amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 75106-29-5 CAPLUS

Adenosine, 2-[(4-acetylphenyl)amino]- (9CI) (CA INDEX NAME) CN

Absolute stereochemistry.

75106-30-8 CAPLUS RN

Adenosine, 2-[(3-acetyl-4-ethoxyphenyl)amino]- (9CI) (CA INDEX NAME) CN

Absolute stereochemistry.

75106-32-0 CAPLUS RN

Adenosine, 2-[(4-acetyl-3-methoxyphenyl)amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

75106-33-1 CAPLUS

CNAdenosine, 2-[(4-acetyl-3-chlorophenyl)amino]- (9CI) (CA INDEX NAME)

76888-18-1 CAPLUS

CN Adenosine, 2-[(3-acetylphenyl)amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN

102711-68-2 CAPLUS Adenosine, 2-[(4-acetyl-2,5-dimethylphenyl)amino]- (9CI) (CA INDEX NAME) ${\tt CN}$

Absolute stereochemistry.

102711-69-3 CAPLUS RN

Adenosine, 2-[(4-acetyl-3,5-dimethylphenyl)amino]- (9CI) (CA INDEX NAME) CN

Absolute stereochemistry.

102711-70-6 CAPLUS RN

McIntosh

Adenosine, 2-[(5-acetyl-2,4-dimethylphenyl)amino]- (9CI) (CA INDEX NAME) Absolute stereochemistry.

102711-71-7 CAPLUS

Adenosine, 2-[(5,6,7,8-tetrahydro-5-oxo-2-naphthalenyl)amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN

102711-72-8 CAPLUS Adenosine, 2-[(1,3-dihydro-3-oxo-5-isobenzofuranyl)amino]- (9CI) (CA CN INDEX NAME)

Absolute stereochemistry.

102711-87-5 CAPLUS

Adenosine, 2-[(3,5-dichlorophenyl)amino]- (9CI) (CA INDEX NAME) CN

Absolute stereochemistry.

McIntosh

RN 102711-88-6 CAPLUS

CN Adenosine, 2-[(4-acetyl-3-methylphenyl)amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 102711-89-7 CAPLUS

CN Adenosine, 2-[(5-acetyl-2-methylphenyl)amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 102711-90-0 CAPLUS

CN Adenosine, 2-[(5-acetyl-2-chlorophenyl)amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 102711-91-1 CAPLUS

CN Adenosine, 2-[(4-cyanophenyl)amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 102711-92-2 CAPLUS

CN Adenosine, 2-[[4-(dimethylamino)phenyl]amino]- (9CI) (CA INDEX NAME)

102711-93-3 CAPLUS RN

Adenosine, 2-[[4-(1-piperidinylcarbonyl)phenyl]amino]- (9CI) (CA INDEX CNNAME)

Absolute stereochemistry.

RN

102711-94-4 CAPLUS Adenosine, 2-[[4-(4-morpholinylcarbonyl)phenyl]amino]- (9CI) (CA INDEX CNNAME)

Absolute stereochemistry.

102711-95-5 CAPLUS Benzoic acid, 4-[(6-amino-9- β -D-ribofuranosyl-9H-purin-2-yl)amino]-, ethyl ester (CA INDEX NAME)

Absolute stereochemistry.

McIntosh

RN 102711-96-6 CAPLUS

CN Adenosine, 2-[[4-(aminosulfonyl)phenyl]amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 102711-97-7 CAPLUS

CN Adenosine, 2-[[3-(trifluoromethyl)phenyl]amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 102711-98-8 CAPLUS

CN Adenosine, 2-[(3-nitrophenyl)amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 102711-99-9 CAPLUS

CN Adenosine, 2-[(3-aminophenyl)amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 102712-00-5 CAPLUS

CN Adenosine, 2-[[3-(1-oxopropyl)phenyl]amino]- (9CI) (CA INDEX NAME)

RN 102712-01-6 CAPLUS

CN Adenosine, 2-[[3-(1-oxobutyl)phenyl]amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 102712-02-7 CAPLUS

CN Adenosine, 2-[(2,3-dimethylphenyl)amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

OSC.G 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

L6 ANSWER 165 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN

AN 1986:491834 CAPLUS

DN 105:91834

OREF 105:14729a,14732a

TI Towards selective adenosine antagonists

AU Bruns, R. F.; Lu, G. H.; Pugsley, T. A.

- CS Dep. Pharmacol., Warner-Lambert/Parke-Davis Pharm. Res., Ann Arbor, MI, 48105, USA
- Adenosine: Recept. Modulation Cell Funct., Proc. Int. Workshop Adenosine Xanthine Deriv. (1985), Meeting Date 1984, 51-8. Editor(s): Stefanovich, V.; Rudolphi, K.; Schubert, P. Publisher: IRL, Oxford, UK. CODEN: 55CNAD
- DT Conference
- LA English
- AB Affinities of adenosine antagonists for the A1 and A2 subtypes of adenosine receptors were determined: A1 affinities from 3H-labeled N6-cyclohexyladenosine [36396-99-3] binding to membranes from rat whole brain, and A2 affinities from 3H-labeled $1-(6-\text{amino-9H-purin-9-yl})-1-\text{deoxy-N-ethyl-}\beta-\text{D-ribofuronamide}\\ [35920-39-9] binding to rat striatal membranes in the presence of 50 nM N6-cyclopentyladenosine [41552-82-3]. The compds. were also tested for water solubility and for inhibition of the 3 forms of cytosolic phosphodiesterase from guinea pig heart. Most of the common xanthines were 3-10-fold selective for A1 receptors. 8-Cyclopentyltheophylline [35873-49-5] had 100-fold selectivity for A1-receptors and reasonable$

water solubility Alloxazine [490-59-5] had 2-fold selectivity for A2 receptors but was not very soluble relative to its adenosine receptor median inhibitory concentration (IC50). PD 113,297 [96445-35-1], a xanthine derivative containing a tertiary amine, was a potent adenosine antagonist (A1 IC50 8 nM, A2 IC50, 100 nM) with good water solubility. The above antagonists produced negligible phosphodiesterase inhibition even at concns. Which completely occupied adenosine receptors.

IT 53296-10-9

RL: PRP (Properties)

(adenosine receptor subtype affinity of)

RN 53296-10-9 CAPLUS

CN Adenosine, 2-(phenylamino) - (CA INDEX NAME)

Absolute stereochemistry.

L6 ANSWER 166 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN

1 1986:419132 CAPLUS

DN 105:19132

OREF 105:3097a,3100a

TI Characterization of the A2 adenosine receptor labeled by [3H]NECA in rat striatal membranes

AU Bruns, Robert F.; Lu, Gina H.; Pugsley, Thomas A.

CS Dep. Pharmacol., Warner-Lambert/Parke-Davis Pharm. Res., Ann Arbor, MI, 48105, USA

SO Molecular Pharmacology (1986), 29(4), 331-46

CODEN: MOPMA3; ISSN: 0026-895X

DT Journal

LA English

GΙ

AB To study the putative A2 component of 3H-labeled NECA (I) [35920-39-9] binding, several compds. were examined for the ability to selectively eliminate the A1 component of binding in rat striatal membranes; N6-cyclopentyladenosine [41552-82-3] gave the most satisfactory results. Binding of [3H]NECA in the presence of 50 nM N6-cyclopentyladenosine was characterized. The rank order of potency for inhibition of [3H]NECA binding was NECA »2-chloroadenosine [146-77-0] > N6-[(R)-1-methyl-2-phenylethyl]adenosine (R-PIA) [38594-96-6] > N6-cyclohexyladenosine [36396-99-3] > S-PIA [38594-97-7], indicating that binding was to an A2 adenosine receptor. When affinities of compds. in [3H]NECA binding to A2 receptors were compared to their affinities in [3H]N6-cyclohexyladenosine binding to A1 receptors, N6-cyclopentyladenosine was the most A1-sensitive agonist (A1 inhibition constant (Ki), 0.59 nM; A2Ki, 460 nM; Ki ratio, 780), whereas the selective

coronary vasodilator 2-(phenylamino)adenosine [53296-10-9] was the most A2-selective agonist (A1, 560 nM; A2, 120 nM; ratio, 0.21). The antagonist 8-cyclopentyltheophylline had considerable A1 selectivity (A1, 11 nM; A2, 1400 nM; ratio, 130), whereas alloxazine had slight A2 selectivity (A1, 5200 nM; A2, 2700; ratio, 0.52). [3H] NECA binding to A2 receptors was highest in striatum but was detectable at much lower levels in each of 7 other brain areas. The regional distribution of [3H]NECA binding and the affinities of adenosine agonists and antagonists for inhibition of binding indicate that the site labeled by [3H]NECA belongs to the high-affinity, or A2a, subclass of A2 receptor.

53296-10-9

RL: BIOL (Biological study) (purinergic A1 and A2 receptors binding of, in brain membranes, structure in relation to)

RN 53296-10-9 CAPLUS

Adenosine, 2-(phenylamino)- (CA INDEX NAME) CN

Absolute stereochemistry.

OSC.G 274 THERE ARE 274 CAPLUS RECORDS THAT CITE THIS RECORD (274 CITINGS)

ANSWER 167 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN

1986:142664 CAPLUS ΑN

104:142664 DN

OREF 104:22415a,22418a

Behavioral characteristics of centrally administered adenosine analogs TΙ

Phillis, J. W.; Barraco, R. A.; DeLong, R. E.; Washington, D. O. Sch. Med., Wayne State Univ., Detroit, MI, 48201, USA ΑU

CS

Pharmacology, Biochemistry and Behavior (1986), 24(2), 263-70 CODEN: PBBHAU; ISSN: 0091-3057 SO

DT Journal

LA English

A series of adenosine analogs and related compds. were injected into the AB lateral cerebral ventricle (ICVT) and their effects on spontaneous locomotor activity of mice recorded. All analogs produced dose-related decreases in locomotor activity 5'-N6-ethyl-carboxamidoadenosine (NECA) [35920-39-9] was the most potent compound tested, with a number of N6-substituted analogs also being effective depressants of activity. Caffeine, administered either ICVT or i.p., antagonized the depressant effects of the adenosine analogs. IBMX, administered ICVT, depressed locomotor activity. However, after caffeine, IBMX elicited behavioral stimulation. Agents which inhibit the transport of adenosine [58-61-7] (dipyridamole, dilazep, papaverine) depressed locomotor activity, as did erythro-9-(2-hydroxy-3-nonyl)adenine (EHNA), an inhibitor of adenosine deaminase. The effects of dilazep, papaverine, and EHNA, but not of dipyridamole, were antagonized by caffeine. Endogenous adenosine is apparently involved in the regulation of central nervous system excitability.

53296-10-9

RL: BIOL (Biological study)

(behavior response to intracerebroventricular administration of)

53296-10-9 CAPLUS RN

Adenosine, 2-(phenylamino) - (CA INDEX NAME)

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OSC.G
        10
                THERE ARE 10 CAPLUS RECORDS THAT CITE THIS RECORD (10 CITINGS)
T.6
     ANSWER 168 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN
     1984:465868 CAPLUS
AN
DN
      101:65868
OREF 101:10039a,10042a
      Further studies on the inhibition of adenosine uptake into rat brain
TΤ
      synaptosomes by adenosine derivatives and methylxanthines
ΑU
      Wu, P. H.; Barraco, R. A.; Phillis, J. W.
     Sch. Med., Wayne State Univ., Detroit, MI, 48201, USA General Pharmacology (1984), 15(3), 251-4 CODEN: GEPHDP; ISSN: 0306-3623
CS
SO
DT
      Journal
LΑ
      English
      Various compds. were tested for their abilities to inhibit the rapid
AΒ
      uptake of adenosine [58-61-7] by rat cerebral cortical synaptosomes.
      Several pharmacol. potent derivs. of adenosine were weak inhibitors of
      uptake, with 20% inhibitory concns. (IC20) >10-5M. Derivs. in this
      category were adenosine-5'-N-ethylcarboxamide [74992-42-0],
      adenosine-5'-cyclopropylcarboxamide [50908-62-8], N6-cyclohexyladenosine
      [36396-99-3], L-N6-phenylisopropyladenosine [38594-97-7],
      1-methylisoguanosine [70639-65-5], 2-phenylaminoadenosine 53296-10-9], and 5-iodotubericidin [91284-08-1]. Several
      methylxanthines were very weak inhibitors of adenosine uptake. These
      included pentoxifylline [6493-05-6], hexyltheophylline [1028-36-0],
      butyltheobromine [1143-30-2], and isoamyltheobromine [1024-65-3]. HL
     725 [78416-81-6], a pyrimidoisoquinoline with potent phosphodiesterase-inhibitory activity, inhibited adenosine uptake with an IC20 of 2.0 + 10-6M. PK 11195 [85532-75-8], a putative ligand for
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the peripheral benzodiazepine binding site, did not alter uptake at 10-4M. TT 53296-10-9 RL: BIOL (Biological study)

(adenosine uptake by brain synaptosome inhibition by)

53296-10-9 CAPLUS

CN Adenosine, 2-(phenylamino) - (CA INDEX NAME)

Absolute stereochemistry.

OSC.G THERE ARE 7 CAPLUS RECORDS THAT CITE THIS RECORD (7 CITINGS)

1.6 ANSWER 169 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN 1984:448402 CAPLUS DN 101:48402

OREF 101:7403a,7406a

Inhibition of coronary circulatory failure and thromboxane A2 release during coronary occlusion and reperfusion by 2-phenylaminoadenosine (CV-1808) in anesthetized dogs

ΑIJ Tanabe, M.; Terashita, Z.; Nishikawa, K.; Hirata, M. Cent. Res. Div., Takeda Chem. Ind. Ltd., Osaka, Japan CS

SO Journal of Cardiovascular Pharmacology (1984), 6(3), 442-8 CODEN: JCPCDT; ISSN: 0160-2446 DT Journal T.A English

GΤ

The effects of a potent coronary vasodilator, CV-1808 (I) [53296-10-9], on coronary circulatory failure and thromboxane (TX)
A2 [66719-58-2] release were studied during coronary occlusion (for 60 min) and subsequent reperfusion (for 60 min) in anesthetized dogs. During coronary reperfusion, the reactive hyperemic response was attenuated, and coronary conductance decreased gradually with time, suggesting coronary circulatory failure. TXA2 release was markedly increased, as demonstrated by contraction of rabbit aortic strips perfused with coronary venous blood draining the ischemic myocardium, and by increased release of radioimmunol. assayable TXB2. CV-1808 (0.25 μ g/kg/min i.v. infusion throughout the exptl. period, starting 10 min before coronary occlusion) inhibited coronary circulatory failure and TXA2 release. TXA2 synthetase [60832-04-4] of horse platelet microsomes was not significantly inhibited (-11.6%) by 10-4M CV-1808. The compound (10-5 and 10-4M) inhibited collagen-induced TXB2 [54397-85-2] formation in a dose-dependent manner (-23.0 and -74.0%, resp.), but not arachidonic acid-induced TXB2 formation by dog platelets, suggesting that CV-1808 inhibited phospholipases. Myocardial infarct size determined 60 min after reperfusion was significantly reduced by CV-1808. Thus, CV-1808 appeared to be effective for salvaging ischemic myocardium. The effect might be related to improvement of coronary circulation and inhibition of release of vasoactive substances, including TXA2, from the ischemic myocardium.

53296-10-9 ΤТ

RL: BIOL (Biological study)

(heart ischemia response to)

RN 53296-10-9 CAPLUS

Adenosine, 2-(phenylamino)- (CA INDEX NAME) CN

Absolute stereochemistry.

OSC.G THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD (3 CITINGS)

ANSWER 170 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN

ΑN 1983:172895 CAPLUS

98:172895 DN

OREF 98:26089a,26092a

Potentiation of the negative chronotropic and inotropic effects of adenosine by 2-phenylaminoadenosine

ΑIJ Chiba, Shigetoshi; Watanabe, Hidehiko

CS Sch. Med., Shinshu Univ., Matsumoto, 390, Japan

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SO
     Clinical and Experimental Pharmacology and Physiology (1983), 10(1), 1-5
     CODEN: CEXPB9; ISSN: 0305-1870
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DT Journal

English LΑ

GΤ

AΒ The effects of 2-phenylaminoadenosine (I) [53296-10-9] on sinoatrial nodal pacemaker activity and atrial contractility were studied in isolated, blood-perfused dog atrial prepns. The compds. were administered via the cannulated sinus node artery of the isolated atrium. I caused neg. chronotropic and inotropic effects. The compound was 100 times less potent than adenosine [58-61-7]. I potentiated the effect of adenosine on atrial muscle, but not that of acetylcholine.

53296-10-9 TΤ

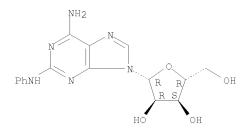
RL: BIOL (Biological study)

(heart response to adenosine in relation to)

53296-10-9 CAPLUS RN

Adenosine, 2-(phenylamino)- (CA INDEX NAME) CN

Absolute stereochemistry.



L6 ANSWER 171 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN

ΑN 1983:172389 CAPLUS

98:172389 DN

OREF 98:25961a,25964a

Quantitation of 6-amino-2-phenylamino-9- β -D-ribofuranosyl-9H-purine (CV-1808) and its metabolite, 2-(4-hydroxyphenyl)aminoadenosine, in human serum and urine by high-performance liquid chromatography using a fluorimetric detector

ΑU Hayashi, Yoshitatsu; Miyake, Sohachiro; Kuwayama, Motoaki; Hattori, Masatoshi; Usui, Yoshiro Cent. Res. Div., Takeda Chem. Ind., Ltd., Osaka, 532, Japan

CS

SO Chemical & Pharmaceutical Bulletin (1982), 30(11), 4107-13

CODEN: CPBTAL; ISSN: 0009-2363

Journal

LA English

GT

AB A high performance liquid chromatog. method using a fluorimetric detector for determination of the quantities of CV-1808 (I) [53296-10-9] and its metabolite 2-(4-hydroxyphenyl)aminoadenosine (II) [81613-39-0] in human serum and urine is presented. I and II, after chromatog. extraction from urine or serum with a Sep-Pak C18 cartridge, are allowed to react with propionic anhydride in the presence of triethylamine and the quantities of the resulting propionyl derivs. of I and II (I-P and II-P) are determined by high performance liquid chromatog. on a μPorasil column. The detection limits of I and II are 5.0 and 10.0 ng/mL in urine and 1.0 and 2.0 ng/mL in serum, resp. For a more sensitive determination of the amount of I in serum, a concentrated eluate of I-P from the μPorasil column is rechromatographed on a minicolumn (10 cm + 2 mm I.D.) packed with Lichrosorb SI-60 (5 μm). With this method, a detection limit of 0.1 ng/mL for I in serum is obtained.

IT 53296-10-9 81613-39-0
RL: ANT (Analyte); ANST (Analytical study) (determination of, in blood and urine of humans by high-performance liquid

chromatog.)
RN 53296-10-9 CAPLUS

CN Adenosine, 2-(phenylamino) - (CA INDEX NAME)

Absolute stereochemistry.

RN 81613-39-0 CAPLUS

CN Adenosine, 2-[(4-hydroxyphenyl)amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

OSC.G 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

L6 ANSWER 172 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN

AN 1983:65261 CAPLUS

DN 98:65261

OREF 98:9845a,9848a

TI Interaction of 2-phenylamimoadenosine (CV 1808) with adenosine systems in

rat tissues ΑU Taylor, David A.; Williams, Michael Dep. Pharmacol., Merck Inst. Ther. Res., West Point, PA, 19486, USA European Journal of Pharmacology (1982), 85(3-4), 335-8 CS SO CODEN: EJPHAZ; ISSN: 0014-2999 DT Journal English LΑ GT

2-chloroadenosine (2-CADO) [146-77-0], and CV 1808 (I) [53296-10-9] were compared in a central nervous system purinergic receptor binding assay and the inhibition of neurogenic contractions of the vas deferens. Both 2-CADO and CV 1808 were more potent than adenosine in both prepns. CV 1808 was 10 times more active than dipyridamole in enhancing the response of the vas deferens to exogenous adenosine. Thus, CV 1808 may owe its potent coronary vasodilator activity to both a direct action on adenosine receptors and the ability to augment adenosine responses. 53296-10-9

RL: BIOL (Biological study)

(as adenosine agonist, vasodilator reactivity in relation to)

RN 53296-10-9 CAPLUS

Adenosine, 2-(phenylamino)- (CA INDEX NAME)

Ι

Absolute stereochemistry.

OSC.G THERE ARE 4 CAPLUS RECORDS THAT CITE THIS RECORD (4 CITINGS)

ANSWER 173 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN

1982:173891 CAPLUS

96:173891

OREF 96:28487a,28490a

TΙ Disposition and metabolism of 2-phenylaminoadenosine (CV-1808), a new coronary vasodilator, in rats and dogs

Yoshida, Kiyoshi; Kondo, Takao; Kobayashi, Takuo; Tanayama, Shigeharu Cent. Res. Div., Takeda Chem. Ind., Osaka, Japan Takeda Kenkyushoho (1981), 40(3/4), 153-62 AU

CS

SO

CODEN: TAKHAA; ISSN: 0371-5167

DT Journal

LΑ English

GΙ

AB The metabolic fate of 14C-labeled CV-1808 (I) [53296-10-9] was studied in rats and dogs after oral administration. CV-1808 was absorbed by rats to give a maximum plasma level at 2 h postadministration and an apparent half-life of 2.3 h. In dogs, the plasma level peaked at 1 h and then declined with a half life of 4.9 h. After oral administration of labeled CV-1808 to rats, radioactivity was widely distributed in tissues with relatively higher concns. found in the gastrointestinal tract, liver, kidney, adrenal gland, lung, and plasma. In both rats and dogs, elimination of the compound was complete within 24-48 h with higher activities found in feces than in urine. The metabolites identified were 8-hydroxy-2-phenylaminoadenine [81613-42-5], 2-phenylaminoadenine [81613-41-4], 8-hydroxy-2-(p-hydroxyphenyl)aminoadenine [81613-40-3], and 2-(p-hydroxyphenyl)aminoadenosine [81613-39-0].

IT 81613-39-0

RL: BIOL (Biological study)

(as phenylaminoadenosine metabolite)

Ι

RN 81613-39-0 CAPLUS

CN Adenosine, 2-[(4-hydroxyphenyl)amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

IT 53296-10-9

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process) (metabolism of)

RN 53296-10-9 CAPLUS

CN Adenosine, 2-(phenylamino)- (CA INDEX NAME)

Absolute stereochemistry.

L6 ANSWER 174 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN

AN 1982:85941 CAPLUS

DN 96:85941

OREF 96:14127a,14130a

N2-(Alkanoylphenyl)-2,6-diaminonebularine TΙ

Takeda Chemical Industries, Ltd., Japan

Jpn. Kokai Tokkyo Koho, 8 pp. SO CODEN: JKXXAF

 DT Patent

Japanese LA

FAN.CNT

GΙ

| IIII. CIVI I | II. CIVI I | | | | | | | |
|----------------------|------------|----------|-----------------|----------|--|--|--|--|
| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE | | | | |
| | | | | | | | | |
| PI JP 56131597 | A | 19811015 | JP 1981-30882 | 19810303 | | | | |
| PRAI IL 1980-59602 | A | 19800312 | | | | | | |
| OS CASREACT 96:85941 | | | | | | | | |

The title compds. (I, R = alkanoyl) were prepared by cyclocondensation of II [R1-R3 = (protected) hydroxy] with RC6H4NHCR4:NH [R4 = (substituted) amino]. Thus, heating a mixture of II (R1 = R2 = R3 = H0) 10, m-H2NC6H4COMe 30, and m-MecCoc6H4NHC(:NH)NH2 14 g at 130° for 3 h gave 9.7 g I (R AΒ = m-MeCO). I (R = m-, p-MeCO, 3-MeCO-4-EtO) at 0.1 μ g/dog showed 269.5-295.0% increase in coronary blood flow in 30 s.

75106-30-8P 76888-18-1P ΙT 75106-29-5P RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of, as coronary vasodilator)

RN

75106-29-5 CAPLUS Adenosine, 2-[(4-acetylphenyl)amino]- (9CI) (CA INDEX NAME) CN

Absolute stereochemistry.

RN 75106-30-8 CAPLUS

Adenosine, 2-[(3-acetyl-4-ethoxyphenyl)amino]- (9CI) (CA INDEX NAME)

RN 76888-18-1 CAPLUS

CN Adenosine, 2-[(3-acetylphenyl)amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

L6 ANSWER 175 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN

AN 1982:600 CAPLUS

DN 96:600

OREF 96:107a,110a

TI Effect of 2-phenylaminoadenosine (CV-1808) on ischemic ST-segment elevation in anesthetized dogs

AU Matsumoto, Naohiko; Kawazoe, Katsuyoshi; Tanabe, Masao; Imamoto, Tetsuji; Fujiwara, Shuji; Hirata, Minoru

CS Med. Res. Lab., Takeda Chem. Ind., Ltd., Osaka, Japan

SO Journal of Cardiovascular Pharmacology (1981), 3(6), 1184-92 CODEN: JCPCDT; ISSN: 0160-2446

DT Journal

LA English

The effect of CV-1808 (2-phenylaminoadenosine) [53296-10-9] on AB myocardial ischemia was studied in anesthetized dogs. During i.v. infusion of CV-1808 (0.25 and 0.5 μ g/kg/min for 10 min) the ST-segment elevation in the epicardial ECG induced by a 5-min occlusion of a coronary arterial branch was occasionally enhanced in association with cardiac acceleration. In a dose of $0.5~\mu g/kg/min$, the agent inhibited the ST elevation 30 and 60 min after administration. The same dose did not change myocardial blood flow in the ischemic area despite significant systemic hypotension. In hearts with continuous coronary occlusion, CV-1808 (0.3 and 1.0 $\mu g/kg$., i.v. bolus) increased the retrograde blood flow from the ischemic area immediately after administration, suggesting a collateral vasodilating action. Nifedipine (0.5 and 2.5 $\mu\text{g}/\text{kg/min,}$ i.v. for 10 min) and nitroglycerin (0.5 and 5.0 $\mu g/kg/min$, i.v. for 10 min) had no influence on the ischemic ST-segment elevation, whereas a significant inhibition was seen with propranolol (0.5 mg/kg. i.v.). A moderate hypotension was induced by CV-1808, nifedipine, and nitroglycerin, whereas a significant reduction in cardiac function was seen after dosing with propranolol.

IT 53296-10-9

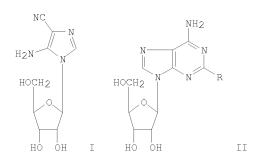
RL: BIOL (Biological study)

(heart circulation and elec. activity response to, in ischemia)

RN 53296-10-9 CAPLUS

CN Adenosine, 2-(phenylamino)- (CA INDEX NAME)

ANSWER 176 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN 1981:620263 CAPLUS AN DN 95:220263 OREF 95:36765a,36768a Synthesis of 2-formyladenosine using diethoxyacetonitrile as a synthon TΙ Murakami, Teiichi; Otsuka, Masami; Kobayashi, Susumu; Ohno, Masaji Fac. Pharm. Sci., Univ. Tokyo, Tokyo, 113, Japan Heterocycles (1981), 16(8), 1315-19 CODEN: HTCYAM; ISSN: 0385-5414 ΑU CS SO DT Journal LA English GΙ



AB Imidazole I was heated with (EtO)2CHCN in BuOH-pyridine at 120° for 10 min in the presence of BuONa to give 90% nucleoside II [R = CH(COEt)2] which on hydrolysis with H2O-AcOH gave 96% II (R = CHO). II (R = CHO) was further converted into II (R = CH:NOH) and II (R = cyano). 2-Formyladenine was analogously prepared

IT 79936-11-1P

RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of)

RN 79936-11-1 CAPLUS

CN Adenosine, 2-cyano- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

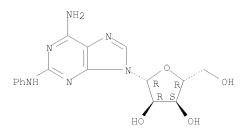
OSC.G 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (2 CITINGS)

L6 ANSWER 177 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN AN 1981:604338 CAPLUS DN 95:204338 OREF 95:34161a,34164a

```
TI Synthesis of 2-phenylaminoadenosine from imidazole nucleosides
AU Omura, Kiyoshi; Marumoto, Ryuji; Furukawa, Yoshiyasu
CS Cent. Res. Lab., Takeda Chem. Ind. Ltd., Osaka, 532, Japan
Chemical & Pharmaceutical Bulletin (1981), 29(7), 1870-5
CODEN: CPBTAL; ISSN: 0009-2363
DT Journal
LA English
GI
```

AB The reaction of imidazole I with PhNCS gave 7-imino-5-phenylamino-3-(β -D-ribofuranosyl)imidazo[4,5-d][1,3]thiazine, which, on alkaline treatment, rearranged to 6-mercapto-2-phenylamino-9-(β -D-ribofuranosyl)purine (II). On methylation, II gave the 6-methylmercapto derivative, which was converted to title adenosine (III) by treatment with NH3. I reacted with PhNHCN in methanolic ammonia, giving III and 2-aminoadenosine as a by-product. Et 5-amino-1- $(\beta$ -D-ribofuranosyl)-4-carboximidate was directly obtained by treatment of 5-amino-1-(2,3,5-tri-0-propionyl- β -Dribofuranosyl)imidazole-4-carboxamide with Meerwein's reagent followed by deacylation, and this gave III by reaction with PhNHCN. 53296-10-9P ΤТ RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of) RN 53296-10-9 CAPLUS Adenosine, 2-(phenylamino) - (CA INDEX NAME)

Absolute stereochemistry.



OSC.G 3 THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD (3 CITINGS)

```
ANSWER 178 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN
     1981:425541 CAPLUS
AN
     95:25541
DN
OREF 95:4471a,4474a
     N2-Substituted 2,6-diaminonetrilarines
PΑ
     Takeda Chemical Industries, Ltd., Japan
     Jpn. Tokkyo Koho, 8 pp.
SO
     CODEN: JAXXAD
DT
     Patent
    Japanese
LΑ
FAN.CNT 2
     PATENT NO.
                        KIND
                              DATE
                                          APPLICATION NO.
                                                                   DATE
```

| PI | JP 55049596 | В | 19801212 | JP 1973-114542 | 19731011 |
|------|------------------|------------|----------|-----------------|----------|
| | JP 50064296 | A | 19750531 | | |
| | DE 2359536 | A1 | 19740612 | DE 1973-2359536 | 19731129 |
| | DE 2359536 | C2 | 19840802 | | |
| | US 3936439 | A | 19760203 | US 1973-420380 | 19731130 |
| | FR 2209567 | A1 | 19740705 | FR 1973-43252 | 19731204 |
| | CH 587864 | A 5 | 19770513 | CH 1973-17069 | 19731205 |
| | CH 601342 | A5 | 19780714 | CH 1976-12948 | 19731205 |
| | NL 7316749 | A | 19740611 | NL 1973-16749 | 19731206 |
| | BE 808377 | A1 | 19740607 | BE 1973-138648 | 19731207 |
| | GB 1418120 | A | 19751217 | GB 1973-56781 | 19731207 |
| | HU 167859 | В | 19751225 | HU 1973-TA1284 | 19731207 |
| | DK 134490 | В | 19761115 | DK 1973-6631 | 19731207 |
| | CA 1012534 | A1 | 19770621 | CA 1973-187678 | 19731207 |
| PRA] | I JP 1972-123602 | A | 19721208 | | |
| | JP 1973-114542 | A | 19731011 | | |
| GT | | | | | |

AB Reaction of the ribofuranosides I (R = reactive group, R1 = alkyl, alkoxy, halo; R2-R4 = protected OH) with NH3 gave the N2-substituted 2,6-diaminonebularines I (R = NH2, R2-R4 = OH). Thus, 17.5 g 6-chloro-2-anilino-2',3',5'-tri-0-acetylnebularine was treated with NH3-MeOH at 120° to give 2-anilinoadenosine.

IT 53296-10-9P 53296-19-8P 53296-20-1P 53296-21-2P RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of)

RN 53296-10-9 CAPLUS
CN Adenosine, 2-(phenylamino) - (CA INDEX NAME)

Absolute stereochemistry.

RN 53296-19-8 CAPLUS CN Adenosine, 2-[(4-methoxyphenyl)amino]- (9CI) (CA INDEX NAME)

RN 53296-20-1 CAPLUS

CN Adenosine, 2-[(4-methylphenyl)amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 53296-21-2 CAPLUS

CN Adenosine, 2-[(4-chlorophenyl)amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

OSC.G 4 THERE ARE 4 CAPLUS RECORDS THAT CITE THIS RECORD (4 CITINGS)

L6 ANSWER 179 OF 195 CAPLUS COPYRIGHT 2010 ACS on SIN

AN 1981:425538 CAPLUS

DN 95:25538

OREF 95:4471a,4474a

TI N2-Substituted-2,6-diaminonebularines

PA Takeda Chemical Industries, Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 7 pp.

CODEN: JKXXAF
DT Patent

LA Japanese

FAN.CNT 1

PATENT NO. KIND DATE APPLICATION NO. DATE

PI JP 55136299 A 19801023 JP 1979-43257 19790409

PRAI JP 1979-43257 A 19790409

GI

Eight nebularines I [(R, R1) = (H, H), (H, Me), (Me, H), (H, OEt), etc.] were prepared by treating II (R2 = CONH2, R3 = H) with (EtCO)20 and then with Et30.BF4 to give II [R2 = C(:NH)OEt, R3 = EtCO], followed by reaction with the appropriate RRIC6H3NHCN, (PhNH)2C:NH, triphenylmelamine, or phenylguanidine carbonate with or without previous deprotection. Thus, 258 g II (R2 = CONH2, R3 = H) in pyridine and 400 mL (EtCO)20 were stirred 16 h at room temperature to give 355 g II (R2 = CONH2, R3 = EtCO), which (10 g) in CH2C12 was added dropwise to 7.2 g Et30.BF4 in CH2C12 with stirring and ice cooling and the mixture was left 20 h in ice to give 14 g II [R2 = C(:NH)OEt, R3 = EtCO], which (10 g) was heated with 12 g PhNHCN in 20% MeOH-NH4OH 5 h at 180° in a sealed vessel to give 1.1 g I (R = R1 = H).

IT 53296-10-9P 53296-20-1P 70590-18-0P 70590-23-7P 70590-28-2P 74615-40-0P 76888-17-0P

RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of)

RN 53296-10-9 CAPLUS

CN Adenosine, 2-(phenylamino) - (CA INDEX NAME)

Absolute stereochemistry.

RN 53296-20-1 CAPLUS

CN Adenosine, 2-[(4-methylphenyl)amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 70590-18-0 CAPLUS

CN Adenosine, 2-[(3-chlorophenyl)amino]- (9CI) (CA INDEX NAME)

RN 70590-23-7 CAPLUS

CN Adenosine, 2-[(3-methylphenyl)amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 70590-28-2 CAPLUS

CN Adenosine, 2-[(3,4-dimethoxyphenyl)amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 74615-40-0 CAPLUS

CN Adenosine, 2-[[4-[(cyclohexylamino)carbonyl]phenyl]amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 76888-17-0 CAPLUS

CN Adenosine, 2-[(4-ethoxyphenyl)amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

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L6
     ANSWER 180 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN
ΑN
     1981:121883 CAPLUS
DN
     94:121883
OREF 94:19951a,19954a
TΙ
     2,6-Diaminonebularines
     Sawa, Yoichi; Kawakami, Yoshiyuki; Marumoto, Ryuji
     Takeda Chemical Industries, Ltd., Japan
PΑ
    Eur. Pat. Appl., 27 pp.
SO
     CODEN: EPXXDW
     Patent
    English
LΑ
FAN.CNT
```

| | L MIN . | CTA T | 1 | | | | | | | | | | | | |
|-------------|---------|------------|-------------|------|-----|----------------|------|----|----------|------|-----|-----------------|-------------|--|----------|
| | | PATENT NO. | | | | | KIND | | DATE | | | APPLICATION NO. | | | DATE |
| | | | | | | | | | | | | | | | |
| PI EP 17465 | | | A1 19801015 | | | EP 1980-301024 | | | 19800401 | | | | | | |
| | | | R: | ΑT, | BE, | CH, | DE, | FR | , GB, | ΙT, | NL, | SE | 1 | | |
| | | JP | 5513 | 0998 | | | Α | | 1980 | 1011 | | JΡ | 1979-39562 | | 19790402 |
| | | NO | 8000 | 868 | | | A | | 1980 | 1003 | | NO | 1980-868 | | 19800325 |
| | | DK | 8001 | 345 | | | Α | | 1980 | 1003 | | DK | 1980-1345 | | 19800328 |
| | | US | 4293 | 690 | | | A | | 1981 | 1006 | | US | 1980-136072 | | 19800328 |
| | | ΑU | 8056 | 982 | | | A | | 1980 | 1009 | | AU | 1980-56982 | | 19800331 |
| | | FΙ | 8001 | 033 | | | Α | | 1980 | 1003 | | FΙ | 1980-1033 | | 19800401 |
| | PRAI | JΡ | 1979 | -395 | 52 | | Α | | 1979 | 0402 | | | | | |
| | | | | | | | | | | | | | | | |

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT OS CASREACT 94:121883; MARPAT 94:121883

GΙ

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Nebularines I (R = Ph, substituted phenyl) were prepared by cyclization of
AΒ
      nucleosides II (R1, R2, R3 = protected or unprotected OH) with RNHC(:NH)R4
      (same R; R4 = NH2, substituted amino, alkylthio) followed by deprotection where necessary. Thus, II (R1 = R2 = R3 = OH) was heated with 1,3-diphenylguanidine in PhNH2 at 150-5^{\circ} to give 68.8\% I (R = Ph).
      53296-10-9P
                        53296-20-1P
                                          70590-22-6P
      70590-23-7P
                        70590-27-1P
                                          74615-32-0P
                                          75106-30-8P
      74615-36-4P
                        74615-40-0P
      76888-17-0P
                        76888-18-1P
      RL: SPN (Synthetic preparation); PREP (Preparation)
          (preparation of)
RN
      53296-10-9 CAPLUS
CN
      Adenosine, 2-(phenylamino) - (CA INDEX NAME)
```

Absolute stereochemistry.

RN 53296-20-1 CAPLUS

CN Adenosine, 2-[(4-methylphenyl)amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 70590-22-6 CAPLUS

N Adenosine, 2-[(3-methoxyphenyl)amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

70590-23-7 CAPLUS

CN Adenosine, 2-[(3-methylphenyl)amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 70590-27-1 CAPLUS

CN Adenosine, 2-[(3-chloro-4-methylphenyl)amino]- (9CI) (CA INDEX NAME)

RN 74615-32-0 CAPLUS

CN Adenosine, 2-[[4-(aminocarbonyl)phenyl]amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 74615-36-4 CAPLUS

CN Adenosine, 2-[[3-(aminocarbonyl)phenyl]amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 74615-40-0 CAPLUS

CN Adenosine, 2-[[4-[(cyclohexylamino)carbonyl]phenyl]amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 75106-30-8 CAPLUS

CN Adenosine, 2-[(3-acetyl-4-ethoxyphenyl)amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

76888-17-0 CAPLUS RN

CNAdenosine, 2-[(4-ethoxyphenyl)amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 76888-18-1 CAPLUS

CNAdenosine, 2-[(3-acetylphenyl)amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

OSC.G THERE ARE 4 CAPLUS RECORDS THAT CITE THIS RECORD (4 CITINGS)

ANSWER 181 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN L6

1980:568559 CAPLUS ΑN

DN 93:168559

OREF 93:26863a,26866a

ТΤ 2,6-Diaminonebularines

Marumoto, Ryuji; Tanabe, Masao; Furukawa, Yoshiyasu Takeda Chemical Industries, Ltd., Japan Ger. Offen., 33 pp.
CODEN: GWXXBX IN

PA

SO

DT Patent

German LA

| FAN. | CNT 2
PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---------------------|------|----------|-----------------|----------|
| PI | DE 2941592 | A1 | 19800424 | DE 1979-2941592 | 19791013 |
| | JP 55053299 | A | 19800418 | JP 1978-127109 | 19781016 |
| | JP 62003159 | В | 19870123 | | |
| | JP 56012400 | A | 19810206 | JP 1979-87074 | 19790709 |
| | JP 63003876 | В | 19880126 | | |
| PRAI | JP 1978-127109 | A | 19781016 | | |
| | JP 1979-87074 | A | 19790709 | | |
| GT | | | | | |

McIntosh

AΒ Diaminonebularines I (R = carbamoyl, acyl; R1 = H, halogen, alkoxy) were prepared Thus 4-H2NC6H4CONH2.HCl was treated with KSCN to give 4-H2NCOC6H4NHCSNH2 which was treated with Pb(OAc)4 to give 4-H2NCOC6H4NHCN. Treatment of the latter compound with $5-\text{amino}-1-\beta-D-\text{ribofuranosyl}-4-\text{cyanoimidazole}$ gave I (R = 4-H2NCO, R1 = H) which at 0.1 μ g increased the coronary blood flow in dogs by 199% 30 s after administration. 74615-32-0P 74615-33-1P ΙT 74615-38-6P 74615-39-7P 74615-40-0P 74615-42-2P 75106-22-8P 75106-25-1P 75106-26-2P 75106-29-5P 75106-30-8P 75106-31-9P RL: SPN (Synthetic preparation); PREP (Preparation) (preparation and coronary vasodilator activity of) 74615-32-0 CAPLUS RN CNAdenosine, 2-[[4-(aminocarbonyl)phenyl]amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 74615-33-1 CAPLUS

CN Adenosine, 2-[[4-[(propylamino)carbonyl]phenyl]amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 74615-38-6 CAPLUS

CN Adenosine, 2-[[4-[(methylamino)carbonyl]phenyl]amino]- (9CI) (CA INDEX NAME)

74615-39-7 CAPLUS RN

Adenosine, 2-[[4-[(ethylamino)carbonyl]phenyl]amino]- (9CI) (CA INDEX CNNAME)

Absolute stereochemistry.

RN

74615-40-0 CAPLUS
Adenosine, 2-[[4-[(cyclohexylamino)carbonyl]phenyl]amino]- (9CI) (CA CNINDEX NAME)

Absolute stereochemistry.

74615-42-2 CAPLUS RN

CNAdenosine, 2-[[4-[(dimethylamino)carbonyl]phenyl]amino]- (9CI) (CA INDEX NAME)

RN 75106-22-8 CAPLUS

CN Adenosine, 2-[[2-(aminocarbonyl)phenyl]amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 75106-25-1 CAPLUS

CN Adenosine, 2-[[2-(1-oxopropyl)phenyl]amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 75106-26-2 CAPLUS

CN Adenosine, 2-[(2-acetylphenyl)amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 75106-29-5 CAPLUS

CN Adenosine, 2-[(4-acetylphenyl)amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 75106-30-8 CAPLUS

CN Adenosine, 2-[(3-acetyl-4-ethoxyphenyl)amino]- (9CI) (CA INDEX NAME)

75106-31-9 CAPLUS RN

Adenosine, 2-[[4-(1-oxobutyl)phenyl]amino]- (9CI) (CA INDEX NAME) CN

Absolute stereochemistry.

74615-37-5P 74615-41-1P 75106-23-9P ΙT 75106-24-0P 75106-32-0P 75106-33-1P

75106-34-2P

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of)

RN 74615-37-5 CAPLUS

Adenosine, 2-[[4-(aminocarbonyl)-3-chlorophenyl]amino]- (9CI) (CA INDEX CN NAME)

Absolute stereochemistry.

74615-41-1 CAPLUS

Adenosine, 2-[[4-[(phenylamino)carbonyl]phenyl]amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN

75106-23-9 CAPLUS Adenosine, 2-[[2-[(phenylamino)carbonyl]phenyl]amino]- (9CI) (CA INDEX CN NAME)

Absolute stereochemistry.

75106-24-0 CAPLUS RN

Adenosine, 2-[[4-[(ethylamino)carbonyl]phenyl]amino]-, monohydrochloride CN (9CI) (CA INDEX NAME)

Absolute stereochemistry.

● HCl

RN

75106-32-0 CAPLUS Adenosine, 2-[(4-acetyl-3-methoxyphenyl)amino]- (9CI) (CA INDEX NAME) CN

Absolute stereochemistry.

75106-33-1 CAPLUS RN

 ${\tt CN}$ Adenosine, 2-[(4-acetyl-3-chlorophenyl)amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

75106-34-2 CAPLUS RN

Adenosine, 2-[(4-acetylphenyl)amino]-, monohydrochloride (9CI) (CA INDEX NAME)

Absolute stereochemistry.

● HCl

ANSWER 182 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN 1.6 1980:525711 CAPLUS DN 93:125711 OREF 93:19905a,19908a Coronary and cardiohemodynamic effects of 2-phenylaminoadenosine (CV-1808) TΙ in anesthetized dogs and cats Kawazoe, K.; Matsumoto, N.; Tanabe, M.; Fujiwara, S.; Yanagimoto, M.; ΑU Hirata, M.; Kikuchi, K. Cent. Res. Div., Takeda Chem. Ind. Ltd., Osaka, 532, Japan CS SO Arzneimittel-Forschung (1980), 30(7), 1083-7 CODEN: ARZNAD; ISSN: 0004-4172 DT Journal English LΑ

GΙ

The coronary vasodilating effect of intracoronary or i.v. CV 1808 (I) [AB 53296-10-9] in dogs was greater than that of nifedipine, nitroglycerin, or dipyridamole. I increased blood flow to the superior mesenteric artery to a lesser extent than blood flow to the coronary vascular bed, and blood flow to the femoral artery was decreased. I.v. I caused a dose-dependent increase in left ventricular dp/dt, which was inhibited by pretreatment with propranolol. I was well absorbed from the intestinal tract. 53296-10-9 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study) (coronary vasodilating activity of) 53296-10-9 CAPLUS

RN

Adenosine, 2-(phenylamino) - (CA INDEX NAME)

THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS) OSC.G 1

ANSWER 183 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN L6

1980:495598 CAPLUS AN

93:95598 DN

OREF 93:15349a,15352a

N2-Substituted phenyl-2,6-diaminonebularines Takeda Chemical Industries, Ltd., Japan TΙ

PA

SO Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF DT Patent

Japanese LA

FAN.CNT 2

GΙ

| FAN. | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|------------------|------------|----------|-----------------|----------|
| PI | JP 55053299 |
A | 19800418 | JP 1978-127109 | 19781016 |
| | JP 62003159 | В | 19870123 | | |
| | AU 7951189 | A | 19800424 | AU 1979-51189 | 19790926 |
| | CH 642668 | A 5 | 19840430 | CH 1979-9083 | 19791009 |
| | DK 7904303 | A | 19800417 | DK 1979-4303 | 19791011 |
| | SE 7908480 | A | 19800417 | SE 1979-8480 | 19791012 |
| | US 4258033 | A | 19810324 | US 1979-85057 | 19791012 |
| | DE 2941592 | A1 | 19800424 | DE 1979-2941592 | 19791013 |
| | NL 7907611 | A | 19800418 | NL 1979-7611 | 19791015 |
| | CA 1112641 | A1 | 19811117 | CA 1979-337577 | 19791015 |
| | BE 879436 | A1 | 19800416 | BE 1979-197665 | 19791016 |
| | FR 2439207 | A1 | 19800516 | FR 1979-25642 | 19791016 |
| | FR 2439207 | В1 | 19820611 | | |
| | GB 2034704 | A | 19800611 | GB 1979-35932 | 19791016 |
| | GB 2034704 | В | 19830330 | | |
| PRA: | I JP 1978-127109 | A | 19781016 | | |
| | JP 1979-87074 | A | 19790709 | | |
| OS | MARPAT 93:95598 | | | | |

Twelve title nebularines I [one of R and R1 is CONR2R3 (R2 = H, alkyl; R3 = H, alkyl, cyclohexyl, Ph) and the other is H or halo], having coronary vasodilating activity (data given in dogs), were prepared Thus, a mixture of 10 g 5-amino-1- β -D-ribofuranosyl-4-cyanoimidazole, 12 g 4-H2NCOC6H4NHCN, and 150 mL 20% MeOH-NH3 was autoclaved 5 h at 80° to give 2 g I (R = H, R1 = H2NCO). 74615-32-0P 74615-33-1P 74615-34-2P

74615-35-3P 74615-36-4P 74615-37-5P

10/598,520

Absolute stereochemistry.

RN 74615-33-1 CAPLUS

CN Adenosine, 2-[[4-[(propylamino)carbonyl]phenyl]amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 74615-34-2 CAPLUS

Absolute stereochemistry.

●x HCl

RN 74615-35-3 CAPLUS

CN Adenosine, 2-[[3-[(phenylamino)carbonyl]phenyl]amino]- (9CI) (CA INDEX NAME)

RN

74615-36-4 CAPLUS Adenosine, 2-[[3-(aminocarbonyl)phenyl]amino]- (9CI) (CA INDEX NAME) CN

Absolute stereochemistry.

74615-37-5 CAPLUS

Adenosine, 2-[[4-(aminocarbonyl)-3-chlorophenyl]amino]- (9CI) (CA INDEX CN NAME)

Absolute stereochemistry.

74615-38-6 CAPLUS RN

CN Adenosine, 2-[[4-[(methylamino)carbonyl]phenyl]amino]- (9CI) (CA INDEX

Absolute stereochemistry.

74615-39-7 CAPLUS

Adenosine, 2-[[4-[(ethylamino)carbonyl]phenyl]amino]- (9CI) (CA INDEX CNNAME)

RN 74615-40-0 CAPLUS

CN Adenosine, 2-[[4-[(cyclohexylamino)carbonyl]phenyl]amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 74615-41-1 CAPLUS

CN Adenosine, 2-[[4-[(phenylamino)carbonyl]phenyl]amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 74615-42-2 CAPLUS

CN Adenosine, 2-[[4-[(dimethylamino)carbonyl]phenyl]amino]- (9CI) (CA INDEX NAME)

OSC.G 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (2 CITINGS)

L6 ANSWER 184 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN

AN 1980:495591 CAPLUS

DN 93:95591

OREF 93:15345a,15348a

TI 2-Substituted adenosine derivatives

IN Ueda, Tooru; Matsuda, Akira; Nomoto, Juji

PA Yamasa Shoyu Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

| 11111.0111 1 | | | | |
|---------------------|------|----------|-----------------|----------|
| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
| | | | | |
| PI JP 55036419 | A | 19800314 | JP 1978-109655 | 19780908 |
| JP 63003875 | В | 19880126 | | |
| PRAI JP 1978-109655 | A | 19780908 | | |
| CT | | | | |

AB The title compds. I (R = HN:CR1 where R1 = alkoxy, OH, NH2) were prepared by treating OH-protected I (R = CN) with alkoxides. Thus, 418 mg 2',3',5'-O-triacetyl-2-cyanoadenosine reacted with MeONa-MeOH at room temperature for 17 h followed by treatment with Dowex 50 to give 288 mg I [R = HN:C(OMe)], whose hydrolysis (HCl) gave I (R = CO2Me), which was saponified to give I (R = CO2Na).

IT 70255-72-0P

RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of)

RN 70255-72-0 CAPLUS

CN Adenosine, 2-(aminocarbonyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

OSC.G 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (2 CITINGS)

L6 ANSWER 185 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN

AN 1979:508193 CAPLUS

DN 91:108193

OREF 91:17475a,17478a

TI 2,6-Diaminonebularines

IN Marumoto, Ryuji; Shima, Shunsuke; Furukawa, Yoshiyasu

PA Takeda Chemical Industries, Ltd., Japan

| SO
DT
LA
FAN | | KIND | DATE | APPLICATION NO. | DATE |
|-----------------------|------------------|--------|----------|-----------------|----------|
| ΡI | DE 2845435 |
A1 | 19790426 | DE 1978-2845435 | 19781019 |
| | | A | | JP 1977-127147 | 19771021 |
| | | A | | GB 1978-39583 | 19781006 |
| | GB 2007664 | В | 19820526 | | |
| | AU 7840511 | A | 19800417 | AU 1978-40511 | 19781009 |
| | AU 521358 | В2 | 19820401 | | |
| | ZA 7805762 | A | 19790926 | ZA 1978-5762 | 19781012 |
| | CA 1102794 | A1 | 19810609 | CA 1978-313340 | 19781013 |
| | FI 7803181 | A | 19790422 | FI 1978-3181 | 19781018 |
| | SE 7810854 | A | 19790422 | SE 1978-10854 | 19781018 |
| | DK 7804655 | A | | | |
| | BE 871422 | A1 | 19790420 | | |
| | NL 7810519 | A | 19790424 | NL 1978-10519 | |
| | NO 7803559 | A | | | 19781020 |
| | FR 2406640 | A1 | 19790518 | FR 1978-29945 | 19781020 |
| | FR 2406640 | В1 | 19820528 | | |
| | AT 7807552 | | 19810115 | AT 1978-7552 | 19781020 |
| | AT 363619 | В | | | |
| | | A | | US 1978-953255 | 19781020 |
| | JP 1977-127147 | A | 19771021 | | |
| OS | MARPAT 91:108193 | | | | |
| GI | | | | | |

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AΒ
     Diaminonebularines I (R = optionally substituted Ph, cyclohexyl) were
     prepared by treating the aminoimidazolecarbonitrile II or its protected
     derivs. with RN:C:NR4 (R4 = H, R). Thus,
     5-amino-1-\beta-D-ribofuranosyl-4-imidazolecarboxamide was acylated,
     dehydrated, and deacylated to give II, which was treated with PhNHCN to give I (R=Ph). PhNHCN was prepared by treating PhNH2 with KSCN and H2S
     elimination from PhNHCSNH2 with KOH and Pb(OAc)4.
     53296-10-9P
                    53296-20-1P
                                    53296-21-2P
     70590-18-0P
                     70590-20-4P
                                    70590-22-6P
     70590-23-7P
                    70590-25-9P
                                    70590-26-0P
     70590-27-1P
                    70590-28-2P
                                    70590-29-3P
     70590-30-6P
                    70590-31-7P
                                    71231-75-9P
                                    71231-78-2P
     71231-76-0P
                     71231-77-1P
     71231-79-3P
                                    71231-81-7P
                     71231-80-6P
     71231-82-8P
                    71231-83-9P
                                    71231-84-0P
     71231-85-1P
                    71231-86-2P
     RL: SPN (Synthetic preparation); PREP (Preparation)
         (preparation of)
     53296-10-9 CAPLUS
     Adenosine, 2-(phenylamino) - (CA INDEX NAME)
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10/598,520

RN 53296-20-1 CAPLUS

CN Adenosine, 2-[(4-methylphenyl)amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 53296-21-2 CAPLUS

CN Adenosine, 2-[(4-chlorophenyl)amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 70590-18-0 CAPLUS

CN Adenosine, 2-[(3-chlorophenyl)amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 70590-20-4 CAPLUS

CN Adenosine, 2-[(3,4-dimethylphenyl)amino]- (9CI) (CA INDEX NAME)

10/598,520

RN

70590-22-6 CAPLUS Adenosine, 2-[(3-methoxyphenyl)amino]- (9CI) (CA INDEX NAME) CN

Absolute stereochemistry.

70590-23-7 CAPLUS

Adenosine, 2-[(3-methylphenyl)amino]- (9CI) (CA INDEX NAME) CN

Absolute stereochemistry.

RN 70590-25-9 CAPLUS

Adenosine, 2-[(3-fluorophenyl)amino]- (9CI) (CA INDEX NAME) ${\tt CN}$

Absolute stereochemistry.

70590-26-0 CAPLUS RN

Adenosine, 2-[(3-bromophenyl)amino]- (9CI) (CA INDEX NAME)

RN 70590-27-1 CAPLUS

CN Adenosine, 2-[(3-chloro-4-methylphenyl)amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 70590-28-2 CAPLUS

CN Adenosine, 2-[(3,4-dimethoxyphenyl)amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 70590-29-3 CAPLUS

CN Adenosine, 2-[(3-chloro-4-methoxyphenyl)amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 70590-30-6 CAPLUS

CN Adenosine, 2-[(3,4-dichlorophenyl)amino]- (9CI) (CA INDEX NAME)

10/598,520

RN 70590-31-7 CAPLUS

CN Adenosine, 2-[(3-butylphenyl)amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 71231-75-9 CAPLUS

CN Adenosine, 2-(phenylamino)-, monohydrochloride (9CI) (CA INDEX NAME)

Absolute stereochemistry.

● HCl

RN 71231-76-0 CAPLUS

CN Adenosine, 2-[(2-methylphenyl)amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 71231-77-1 CAPLUS

CN Adenosine, 2-[(2-methoxyphenyl)amino]- (9CI) (CA INDEX NAME)

71231-78-2 CAPLUS Adenosine, 2-[(4-bromophenyl)amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

71231-79-3 CAPLUS

Adenosine, 2-[(4-fluorophenyl)amino]- (9CI) (CA INDEX NAME) CN

Absolute stereochemistry.

RN 71231-80-6 CAPLUS

Adenosine, 2-[(2-fluorophenyl)amino]- (9CI) (CA INDEX NAME) ${\tt CN}$

Absolute stereochemistry.

71231-81-7 CAPLUS RN

Adenosine, 2-[(4-ethylphenyl)amino]- (9CI) (CA INDEX NAME)

RN

71231-82-8 CAPLUS Adenosine, 2-[(2,5-dimethylphenyl)amino]- (9CI) (CA INDEX NAME) CN

Absolute stereochemistry.

71231-83-9 CAPLUS

Adenosine, 2-[(3,5-dimethylphenyl)amino]- (9CI) (CA INDEX NAME) CN

Absolute stereochemistry.

RN 71231-84-0 CAPLUS

Adenosine, 2-[(2,4-dimethylphenyl)amino]- (9CI) (CA INDEX NAME) CN

Absolute stereochemistry.

RN71231-85-1 CAPLUS

Adenosine, 2-[(4-chloro-2-methoxyphenyl)amino]- (9CI) (CA INDEX NAME)

RN 71231-86-2 CAPLUS

Adenosine, 2-[(2,3-dichlorophenyl)amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (2 CITINGS)

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ANSWER 186 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN
L6
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- AN 1979:491903 CAPLUS
- 91:91903 DN
- OREF 91:14866h,14867a
- Synthesis and enzymic activity of adenosine 3',5'-cyclic phosphate analogs TT
- Marumoto, Ryuji; Yoshioka, Yoshio; Naka, Takehiko; Shima, Shunsuke; ΑU Miyashita, Osamu; Maki, Yoshitaka; Suzuki, Tsuyoshi; Honjo, Mikio
- Cent. Res. Div., Takeda Chem. Ind., Ltd., Osaka, 532, Japan Chemical & Pharmaceutical Bulletin (1979), 27(4), 990-1003 CS
- SO CODEN: CPBTAL; ISSN: 0009-2363
- DT Journal
- LΑ English
- 2-Mono- and 2,6-disubstituted cAMP (cAMP = adenosine 3',5'-cyclic AB phosphate) were derived from the corresponding adenosine analogs via the 5'-phosphates. 2-Substituted cAMP and aristeromycin 3',6'-cyclic phosphate were converted to the 8-bromo derivs. 8-(3,5-Dimethylpyrazol-1-yl)-cAMP was derived from 8-hydrazinoadenosine. 8-(2-Hydroxypropyl-2)-cAMP was prepared by γ -ray irradiation of cAMP in isopropanol. N6-Butyl-2-phenyl-cAMP was derived from 2-phenylinosine. 2-Or 8-substituted cAMP was converted to its dibutyryl derivative The activities of these new analogs were assessed with cAMP-dependent protein kinases (PK) and cAMP phosphodiesterases (PDE). 8-Bromo-2-chloro-, 2-chloro-, 2-phenylthio-, 8-carbamoyl- and 8-carboxy-cAMP were better activators of PK than cAMP, while 2-substituted analogs were significant substrates and inhibitors of PDE. 2-Phenyl-, benzyl-, phenoxy-, chloro- and bromo-cAMP or aristeromycin 3',6'-cyclic phosphate had an inhibitory effect on the binding of cAMP to PK equal to or greater than that of cAMP.
- 50257-82-4 50257-84-6 ΤТ
 - RL: RCT (Reactant); RACT (Reactant or reagent) (phosphorylation of, with pyrophosphoryl chloride)
- RN 50257-82-4 CAPLUS
- Adenosine, 2-phenoxy- (CA INDEX NAME) CN

RN

50257-84-6 CAPLUS Adenosine, 2-butoxy- (9CI) (CA INDEX NAME) CN

Absolute stereochemistry.

THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (2 CITINGS)

ANSWER 187 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN 1979:474850 CAPLUS L6

DN 91:74850

OREF 91:12117a,12120a

TI N2-Substituted phenyl-2,6-diaminonebularine
IN Marumoto, Ryuji; Tanabe, Masao; Furukawa, Yoshiyasu
PA Takeda Chemical Industries, Ltd., Japan

SO

Ger. Offen., 24 pp. CODEN: GWXXBX

DT Patent

LA German FAN.CNT 1

| E MIN | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|-------|------------------|------|----------|-----------------|----------|
| PI | DE 2845496 | A1 | 19790426 | DE 1978-2845496 | 19781019 |
| | JP 54061195 | A | 19790517 | JP 1977-127148 | 19771021 |
| | GB 2007213 | A | 19790516 | GB 1978-39582 | 19781006 |
| | GB 2007213 | В | 19820526 | | |
| | AU 7840512 | A | 19800417 | AU 1978-40512 | 19781009 |
| | AU 521102 | В2 | 19820318 | | |
| | SE 7810905 | A | 19790422 | SE 1978-10905 | 19781019 |
| | NL 7810520 | A | 19790424 | NL 1978-10520 | 19781020 |
| | FR 2406641 | A1 | 19790518 | FR 1978-29946 | 19781020 |
| | FR 2406641 | В1 | 19820611 | | |
| | US 4225591 | A | 19800930 | US 1978-953254 | 19781020 |
| PRA | I JP 1977-127148 | A | 19771021 | | |
| OS | MARPAT 91:74850 | | | | |
| GT | | | | | |

AB The title compds. I (R = R1 = H, halogen, lower alkyl or alkoxy) and their salts were prepared for use as coronary vasodilators (test data tabulated). Thus, 5-amino-1- β -D-ribofuranosyl-4-cyanoimidazole reacted with

RN 70590-19-1 CAPLUS

CN Adenosine, 2-[(3-chlorophenyl)amino]-, monohydrochloride (9CI) (CA INDEX NAME)

Absolute stereochemistry.

● HCl

RN 70590-20-4 CAPLUS

CN Adenosine, 2-[(3,4-dimethylphenyl)amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

N 70590-22-6 CAPLUS

CN Adenosine, 2-[(3-methoxyphenyl)amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 70590-23-7 CAPLUS

CN Adenosine, 2-[(3-methylphenyl)amino]- (9CI) (CA INDEX NAME)

RN 70590-25-9 CAPLUS

CN Adenosine, 2-[(3-fluorophenyl)amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 70590-27-1 CAPLUS

CN Adenosine, 2-[(3-chloro-4-methylphenyl)amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

IT 70590-18-0P 70590-24-8P 70590-26-0P 70590-28-2P 70590-29-3P 70590-30-6P

70590-31-7P

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of)

RN 70590-18-0 CAPLUS

CN Adenosine, 2-[(3-chlorophenyl)amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 70590-24-8 CAPLUS

CN Adenosine, 2-[(3-methylphenyl)amino]-, monohydrochloride (9CI) (CA INDEX NAME)

● HCl

RN 70590-26-0 CAPLUS

CN Adenosine, 2-[(3-bromophenyl)amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 70590-28-2 CAPLUS

CN Adenosine, 2-[(3,4-dimethoxyphenyl)amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 70590-29-3 CAPLUS

CN Adenosine, 2-[(3-chloro-4-methoxyphenyl)amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 70590-30-6 CAPLUS

CN Adenosine, 2-[(3,4-dichlorophenyl)amino]- (9CI) (CA INDEX NAME)

RN 70590-31-7 CAPLUS

CN Adenosine, 2-[(3-butylphenyl)amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

OSC.G 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

L6 ANSWER 188 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN

AN 1979:439769 CAPLUS

DN 91:39769

OREF 91:6497a,6500a

- TI Nucleosides and nucleotides. XXVII. Synthesis of 2- and 8-cyanoadenosines and their derivatives
- AU Matsuda, Akira; Nomoto, Yuji; Ueda, Tohru
- CS Fac. Pharm. Sci., Hokkaido Univ., Sapporo, 060, Japan
- SO Chemical & Pharmaceutical Bulletin (1979), 27(1), 183-92 CODEN: CPBTAL; ISSN: 0009-2363
- DT Journal
- LA English
- OS CASREACT 91:39769
- AB A facile displacement of a methylsulfonyl group in adenosines with cyanide ion is described. Treatment of protected 8-(methylsulfonyl)adenosines with NaCN in DMF gave the 8-cyanoadenosine. The conversion of the cyano group to the Me imidate, methoxycarbonyl, carbamoyl, and carboxylic acid was achieved. Similar reaction was carried out with 2-(methylsulfonyl)adenosine to give the 2-cyanoadenosine and their derivs. The NMR and CD spectra of these 2- and 8-substituted adenosines are given. The 8-substituted adenosines possess syn-conformations while the 2-substituted derivs. prefer anti-conformations, as confirmed by the CD and NMR spectra.
- IT 70255-72-0P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (preparation and spectra of)

RN 70255-72-0 CAPLUS

CN Adenosine, 2-(aminocarbonyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

McIntosh

OSC.G 20 THERE ARE 20 CAPLUS RECORDS THAT CITE THIS RECORD (21 CITINGS)

L6 ANSWER 189 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN

AN 1975:514827 CAPLUS

DN 83:114827

OREF 83:18059a,18062a

TI 2-Alkoxyadenosines

IN Honjo, Mikio; Marumoto, Ryuji; Yoshioka, Yoshio

PA Takeda Chemical Industries, Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 4 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

| T 7 774 . | TIM CIVI I | | | | | | | |
|-----------|----------------|------|----------|-----------------|----------|--|--|--|
| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE | | | |
| | | | | | | | | |
| PI | JP 50053393 | A | 19750512 | JP 1973-105286 | 19730918 | | | |
| PRAI | JP 1973-105286 | A | 19730918 | | | | | |

AB 2-Haloadenosines, where the 2'- and 3'-OH groups are protected, are treated with an aliphatic alc. and base to give 2',3'-protected 2-alkoxyadenosines. 2-Alkoxyadenosines are prepared by hydrolysis. The protected products have coronary vasodilatory, hypotensive, and diuretic activities (no data). Thus, a mixture of 6.6 g 2-chloroadenosine, 55 ml HC(OEt)3, 10 ml DMF, and 0.8 g p-toluenesulfonic acid was stirred at 30° for 0.5 hr, poured into aqueous NaHCO3, and extracted with CHCl3 to give 2',3'-O-ethoxymethylidene derivative which was heated with 3 g NaOH in 62 ml BuOH at 90° for 1 hr to give

2',3'-O-ethoxymethylidene-2-butoxyadenosine. Hydrolysis in 40% aqueous AcOH at 35° for 2 days gave 2-butoxyadenosine. Similarly prepared was 2-pentyloxyadenosine.

IT 50257-84-6P 50257-85-7P

RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of)

RN 50257-84-6 CAPLUS

CN Adenosine, 2-butoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 50257-85-7 CAPLUS

CN Adenosine, 2-(pentyloxy)- (CA INDEX NAME)

Absolute stereochemistry.

OSC.G 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

L6 ANSWER 190 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN

AN 1975:479518 CAPLUS

DN 83:79518

OREF 83:12499a,12502a

10/598,520

TΙ Synthesis and coronary vasodilating activity of 2-substituted adenosines

Marumoto, Ryuji; Yoshioka, Yoshio; Miyashita, Osamu; Shima, Shunsuke; Imai, Kinichi; Kawazoe, Katsuyoshi; Honjo, Mikio

CS

Cent. Res. Div., Takeda Chem. Ind., Osaka, Japan Chemical & Pharmaceutical Bulletin (1975), 23(4), 759-74 SO

CODEN: CPBTAL; ISSN: 0009-2363

DT Journal

LΑ English

2-Haloadenosines were prepared by acetylation of 2-haloinosines followed by AB chlorination and amination. 2-Alkoxyadenosines were prepared by protection of 2'- and 3'-OH groups of 2-chloroadenosine (I) or 2-chloroinosine, followed by substitution of the C atom with alkoxy group. The reaction of 5-amino-4-cyano-1- β -D-ribofuranosylimidazole with CS2 afforded 2,6-di-mercapto-9- β -D-ribofuranosylpurine, which was converted to 2-mercaptoadenosine and its S-substituted derivs. 2-Phenylaminoadenosine (II) was prepared from 2-phenylamino-2',3',5'-tri-0-acetylinosine, which was prepared by acetylation of 2-phenylaminoinosine with AcCl in HOAc. O-substituted 2-hydroxyadenosines, S-substituted 2-mercaptoadenosines, N2-substituted 2-aminoadenosines, 2-alkyl- and -aryl-adenosines were prepared among which several compds. had coronary vasodilating potency. II showed not only a strong potency, but also a longer duration of the effect than that of I.

50257-82-4 50257-85-7 50257-89-1 IT 50257-97-1 50257-90-4 50257-91-5 53296-19-8 53296-20-1 56720-62-8 RL: RCT (Reactant); RACT (Reactant or reagent) (coronary vasodilating activity of)

RN

50257-82-4 CAPLUS Adenosine, 2-phenoxy- (CA INDEX NAME) CN

Absolute stereochemistry.

RN 50257-85-7 CAPLUS

Adenosine, 2-(pentyloxy)- (CA INDEX NAME) CN

Absolute stereochemistry.

50257-89-1 CAPLUS

Adenosine, 2-(2-hydroxyethoxy)- (9CI) (CA INDEX NAME) CN

RN

50257-90-4 CAPLUS Adenosine, 2-(3-methylphenoxy)- (9CI) (CA INDEX NAME) CN

Absolute stereochemistry.

50257-91-5 CAPLUS

Adenosine, 2-(4-methoxyphenoxy)- (9CI) (CA INDEX NAME) CN

Absolute stereochemistry.

RN 50257-97-1 CAPLUS

Adenosine, 2-(2-chlorophenoxy)- (9CI) (CA INDEX NAME) ${\tt CN}$

Absolute stereochemistry.

53296-19-8 CAPLUS

Adenosine, 2-[(4-methoxyphenyl)amino]- (9CI) (CA INDEX NAME)

53296-20-1 CAPLUS RN

Adenosine, 2-[(4-methylphenyl)amino]- (9CI) (CA INDEX NAME) CN

Absolute stereochemistry.

56720-62-8 CAPLUS

Adenosine, 2-(3-methoxybutoxy)- (9CI) (CA INDEX NAME) CN

Absolute stereochemistry.

ΙT 50257-84-6P 53296-10-9P

RL: SPN (Synthetic preparation); PREP (Preparation) (preparation and coronary vasodilating activity of)

50257-84-6 CAPLUS Adenosine, 2-butoxy- (9CI) (CA INDEX NAME) CN

Absolute stereochemistry.

53296-10-9 CAPLUS RN

Adenosine, 2-(phenylamino)- (CA INDEX NAME)

THERE ARE 20 CAPLUS RECORDS THAT CITE THIS RECORD (20 CITINGS) OSC.G 20

```
T.6
    ANSWER 191 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN
```

1975:156651 CAPLUS AN

DN 82:156651

OREF 82:25025a,25028a

2-Substituted adenosines TT

Miyashita, Osamu; Yoshioka, Yoshio; Honjo, Mikio Takeda Chemical Industries, Ltd. IN

PA

Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---------------|------|----------|-----------------|----------|
| | | | | | |
| PI | JP 49124096 | A | 19741127 | JP 1973-37234 | 19730331 |
| PRAI | JP 1973-37234 | A | 19730331 | | |

For diagram(s), see printed CA Issue. GΙ

AB 2-Substituted adenosines [I; R = lower alkyl, R50(CH2)n (R5 = H, lower alkyl, Ph acyl; n = 2-6), phenyl] were prepared by treating 2,6-disubstituted nebularines (II; R2 = H, acyl; R3 = active groups convertible into an NH2 group by reaction with NH3) with NH3. I had coronary vasodilating (in dogs) and hypotensive actions. Thus, 2.8 g $2-\beta$ -methoxyethoxy-6-chloro-2',3',5'-tri-0-acetylnebularine [prepared from $2-(\beta-\text{methoxyethoxy})-\text{inosine}$ (III) via $2-(\beta-\text{methoxyethoxy})-2',3',5'-\text{tri-O-acetylinosine}] \text{ was autoclaved with 20 ml NH3-MeOH 5 hr at 100° to give 0.9 g}$ $2-(\beta-\text{methoxyethoxy})$ adenosine. Among 13 more I prepared were 2-butoxy-,

 $2-(\beta-\text{ethoxyethoxy})-$, $2-(\beta-\text{hydroxyethoxy})-$, and $2-(\beta-phenoxyethoxy)$ adenosines. TΤ

50257-90-4P 50257-91-5P

50257-93-7P 50257-95-9P 50447-11-5P

RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of)

50257-90-4 CAPLUS RN

CN Adenosine, 2-(3-methylphenoxy)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 50257-91-5 CAPLUS

Adenosine, 2-(4-methoxyphenoxy)- (9CI) (CA INDEX NAME)

50257-93-7 CAPLUS RN

Adenosine, 2-(4-hydroxybutoxy)- (9CI) (CA INDEX NAME) CN

Absolute stereochemistry.

$$^{\text{NH}_2}$$
 $^{\text{NH}_2}$
 $^{\text$

50257-95-9 CAPLUS

Adenosine, 2-(hexyloxy)- (CA INDEX NAME) CN

Absolute stereochemistry.

RN 50447-11-5 CAPLUS

Adenosine, 2-[(6-hydroxyhexyl)oxy]- (9CI) (CA INDEX NAME) CN

Absolute stereochemistry.

ANSWER 192 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN L6

ΑN 1974:491898 CAPLUS

81:91898 DN

OREF 81:14577a,14580a

TΙ 2,6-Diaminonebularin derivatives

Marumoto, Ryuji; Yoshioka, Yoshio; Honjo, Mikio; Kawazoe, Katsuyoshi Takeda Chemical Industries, Ltd.

PA

Ger. Offen., 21 pp. SO CODEN: GWXXBX

10/598,520

DT Patent LA German

FAN.CNT 2

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE | | |
|------|----------------|------|----------|-----------------|----------|--|--|
| | | | | | | | |
| PΙ | DE 2359536 | A1 | 19740612 | DE 1973-2359536 | 19731129 | | |
| | DE 2359536 | C2 | 19840802 | | | | |
| | JP 49080096 | A | 19740802 | JP 1972-123602 | 19721208 | | |
| | JP 55049594 | В | 19801212 | | | | |
| | JP 55049596 | В | 19801212 | JP 1973-114542 | 19731011 | | |
| | JP 50064296 | A | 19750531 | | | | |
| PRAI | JP 1972-123602 | A | 19721208 | | | | |
| | JP 1973-114542 | A | 19731011 | | | | |
| | | | | | | | |

GI For diagram(s), see printed CA Issue.

AB Diaminonebularines I (R = Ph, cyclohexyl, p-MeOC6H4, p-MeC6H4, p-ClC6H4, p-methylcyclohexyl) were prepared by treating a 2-haloadenosine with RNH2 or by treating a 2-halo-inosine with RNH2 and NH3. I (R = Ph) had 6.75 times the coronary vasodilator activity of adenosine and at 15 γ /ml caused 38% inhibition of blood platelet aggregation.

IT 53296-10-9P 53296-19-8P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation and pharmacol. activity of)

RN 53296-10-9 CAPLUS

CN Adenosine, 2-(phenylamino) - (CA INDEX NAME)

Absolute stereochemistry.

RN 53296-19-8 CAPLUS

CN Adenosine, 2-[(4-methoxyphenyl)amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

IT 53296-11-0P 53296-20-1P 53296-21-2P

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of)

RN 53296-11-0 CAPLUS

CN Adenosine, 2-(phenylamino)-, hydrochloride (9CI) (CA INDEX NAME)

HC1

53296-20-1 CAPLUS

CN Adenosine, 2-[(4-methylphenyl)amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 53296-21-2 CAPLUS

Adenosine, 2-[(4-chlorophenyl)amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

ANSWER 193 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN

1974:116229 CAPLUS AN

80:116229 DN

OREF 80:18675a,18678a

- Synthesis and anti-deoxyribonucleic acid virus activity of certain ΤI $9-\beta-D$ -arabinofuranosyl-2-substituted adenine derivatives
- Miyai, Kenji; Allen, Lois B.; Huffman, John H.; Sidwell, Robert W.; ΑU Tolman, Richard L.
- Nucleic Acid Res. Inst., ICN Pharm. Inc., Irvine, CA, USA Journal of Medicinal Chemistry (1974), 117(2), 242-4 CS
- SO CODEN: JMCMAR; ISSN: 0022-2623

DT Journal

LA English

A series of title analogs of $9-\beta-D$ -arabinofuranosyladenine (I) [5536-17-4], prepared by nucleophilic displacement of chloride from 9-(2,3,5-tri-0-benzyl- β -D-arabinofuranosyl)-2-chloroadenine [10212-38-1] followed by hydrogenolytic debenzylation, showed little in vitro antiviral activity. $9-\beta-D$ -arabinofuranosyl-2-chloroadenine (II) [10147-12-3] had anti-DNA virus activity comparable to I, and increased survivor nos. in mice with virus-induced encephalitis.

51688-48-3P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (preparation and antiviral activity of)

RN 51688-48-3 CAPLUS

9H-Purin-6-amine, $9-\beta$ -D-arabinofuranosyl-2-(phenylmethoxy)- (CA INDEX NAME)

Absolute stereochemistry.

1.6 ANSWER 194 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN

AN 1974:48334 CAPLUS

DN 80:48334

OREF 80:7885a,7888a

2-Substituted adenosine 3',5'-cyclomonophosphates TΙ

Honjo, Mikio; Marumoto, Ryuji; Yoshioka, Yoshio; Takatsuki, Shima Takeda Chemical Industries, Ltd. ΙN

PΑ

Ger. Offen., 26 pp. SO

CODEN: GWXXBX

DТ Patent

German ${\rm L}{\rm A}$

| FAN. | FAN.CNT 1 | | | | | |
|------|-----------------|------|----------|-----------------|----------|--|
| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE | |
| | | | | | | |
| PΙ | DE 2324130 | A1 | 19731129 | DE 1973-2324130 | 19730512 | |
| | JP 49011896 | A | 19740201 | JP 1972-48372 | 19720515 | |
| | FR 2184813 | A1 | 19731228 | FR 1973-17376 | 19730514 | |
| | AU 7355675 | A | 19741114 | AU 1973-55675 | 19730514 | |
| | CA 1000696 | A1 | 19761130 | CA 1973-171274 | 19730514 | |
| | HU 169628 | В | 19761228 | HU 1973-TA1253 | 19730514 | |
| | NL 7306790 | A | 19731119 | NL 1973-6790 | 19730515 | |
| | AT 7304243 | A | 19751215 | AT 1973-4243 | 19730515 | |
| | AT 331998 | В | 19760910 | | | |
| | GB 1433507 | A | 19760428 | GB 1973-23035 | 19730515 | |
| PRA: | I JP 1972-48372 | A | 19720515 | | | |
| | | | | | | |

GT For diagram(s), see printed CA Issue.

Twenty-two cyclophosphates I (R = e.g. PhCH2S, CH2:CHCH2, MeOCH2CH2S, BuO, Ph, 2-furyl, or 4-pyridyl), useful as antiallergic or central nervous system-stimulating drugs, as diuretics, or bronchodilators, were prepared in part as ammonium salts by intramol. cyclization of the adenosine 5'-monophosphates or their activated (e.g. nitrophenyl) esters with dicyclohexylcarbodiimide or a base, e.g. Me3COK, resp.

ΤТ 50257-84-6

RL: RCT (Reactant); RACT (Reactant or reagent) (phosphorylation of)

50257-84-6 CAPLUS RN

Adenosine, 2-butoxy- (9CI) (CA INDEX NAME)

```
ANSWER 195 OF 195 CAPLUS COPYRIGHT 2010 ACS on STN
     1973:466747 CAPLUS
ΑN
DN
     79:66747
OREF 79:10787a,10790a
     Coronary dilating 2-alkoxyadenosines
TΙ
     Yoshioka, Yoshio; Marumoto, Ryuji; Honjo, Mikio; Kwawzoe, Katsuyoshi
Takeda Chemical Industries, Ltd.
ΙN
PA
SO
     Ger. Offen., 22 pp.
     CODEN: GWXXBX
DT
     Patent
    German
LA
FAN.CNT 1
```

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE | | |
|------|---------------|------|----------|-----------------|----------|--|--|
| | | | | | | | |
| PI | DE 2258378 | A1 | 19730614 | DE 1972-2258378 | 19721129 | | |
| | JP 48061498 | A | 19730828 | JP 1971-97431 | 19711201 | | |
| | JP 48076894 | A | 19731016 | JP 1972-8885 | 19720124 | | |
| | AU 7249412 | A | 19740530 | AU 1972-49412 | 19721129 | | |
| | BE 792155 | A1 | 19730530 | BE 1972-124819 | 19721130 | | |
| | NL 7216299 | A | 19730605 | NL 1972-16299 | 19721130 | | |
| | FR 2162128 | A1 | 19730713 | FR 1972-42673 | 19721130 | | |
| PRAI | JP 1971-97431 | A | 19711201 | | | | |
| | JP 1972-8885 | A | 19720124 | | | | |
| | | | | | | | |

GΙ For diagram(s), see printed CA Issue.

Twenty adenosines I (R = e.g., MeOCH2CH2, BuOCH2CH2, Ph, Et, Pr, Bu, C5H11, CH2:CHCH2, 3-MeC6H4, Me2CH) were prepared by reaction of 2-chloro- or 2-bromoadenosine with ROH in the presence of NaOR, KOR, KOH, NaOH, or Ca(OH)2. I had coronary dilating activities in dogs.

50257-82-4P 50257-84-6P 50257-85-7P ΙΤ 50257-89-1P 50257-90-4P 50257-91-5P 50257-95-9P 50257-93-7P 50257-97-1P 50447-11-5P

RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of)

RN

50257-82-4 CAPLUS Adenosine, 2-phenoxy- (CA INDEX NAME) CN

Absolute stereochemistry.

50257-84-6 CAPLUS Adenosine, 2-butoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

50257-85-7 CAPLUS

Adenosine, 2-(pentyloxy)- (CA INDEX NAME)

50257-89-1 CAPLUS

CN Adenosine, 2-(2-hydroxyethoxy)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN

50257-90-4 CAPLUS Adenosine, 2-(3-methylphenoxy)- (9CI) (CA INDEX NAME) ${\tt CN}$

Absolute stereochemistry.

50257-91-5 CAPLUS RN

CN Adenosine, 2-(4-methoxyphenoxy)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

50257-93-7 CAPLUS RN

Adenosine, 2-(4-hydroxybutoxy)- (9CI) (CA INDEX NAME)

50257-95-9 CAPLUS RN

Adenosine, 2-(hexyloxy)- (CA INDEX NAME) CN

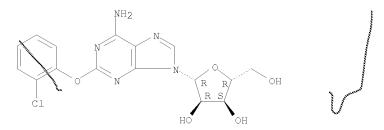
Absolute stereochemistry.

Me
$$^{(CH_2)}$$
 5 NH_2 N $^$

50257-97-1 CAPLUS

Adenosine, 2-(2-chlorophenoxy)- (9CI) (CA INDEX NAME) CN

Absolute stereochemistry.



RN

50447-11-5 CAPLUS Adenosine, 2-[(6-hydroxyhexyl)oxy]- (9CI) (CA INDEX NAME) ${\tt CN}$

Absolute stereochemistry.

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L3 STRUCTURE UPLOADED

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